

002299 02550950

Figure 1

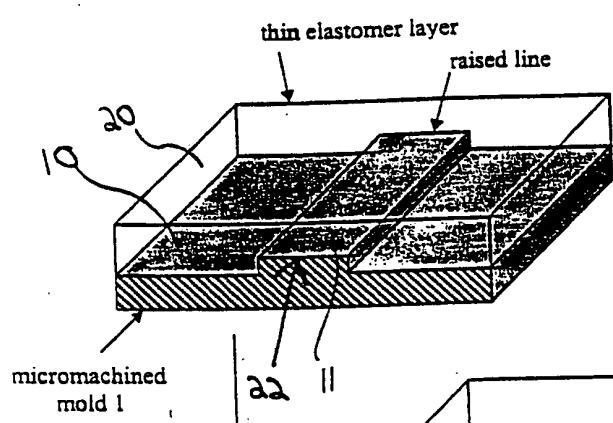


FIG 2

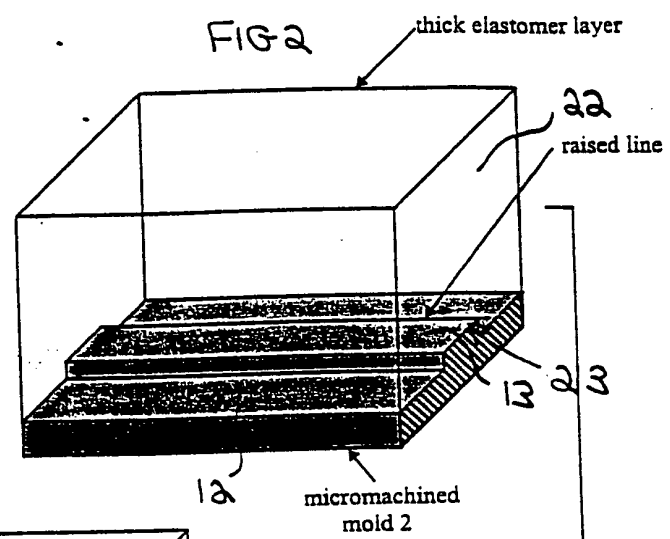


FIG 3

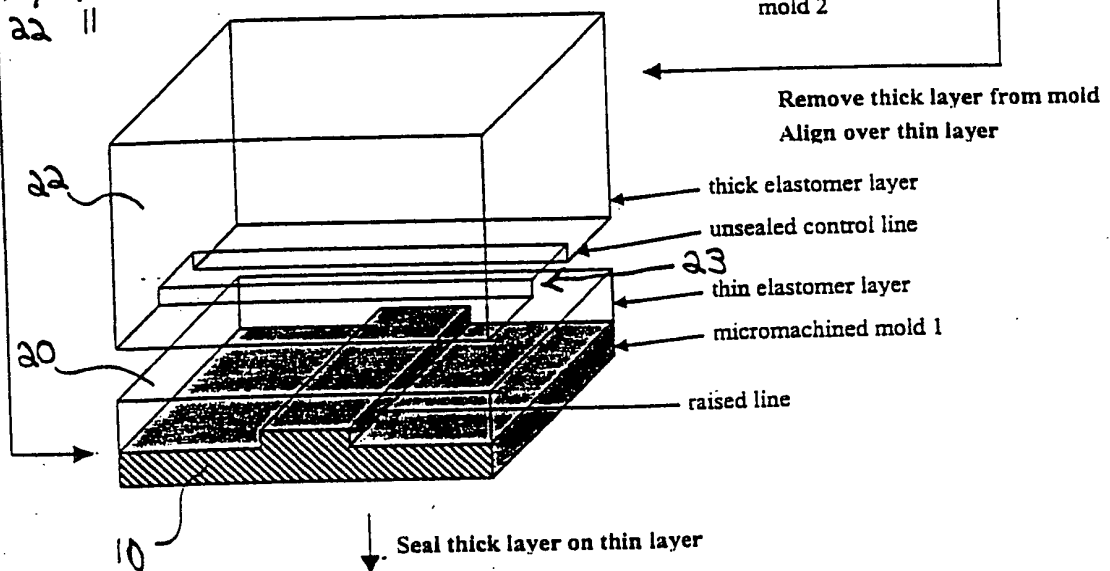
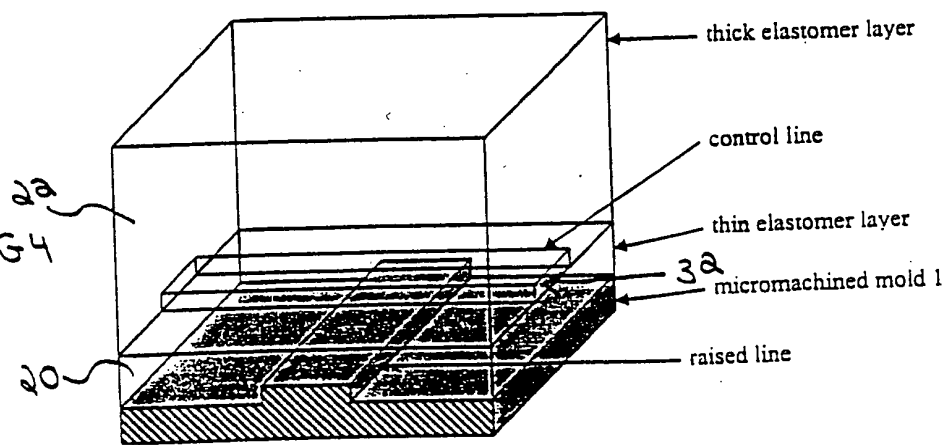


FIG 4



---  
↓ Bond elastomer layers

FIG 5

24

monolithic elastomer layer

control line

32

micromachined mold 1

raised line

10

Remove monolithic layer from mold

Align over planar substrate

FIG 6

monolithic elastomer layer

control line

32

unsealed flow channel

planar substrate

14

21

22

Seal elastomer layer on planar substrate

FIG 7A

monolithic elastomer layer

pneumatic valve  
(control line crossing above flow channel)

control line

32

flow channel

planar substrate

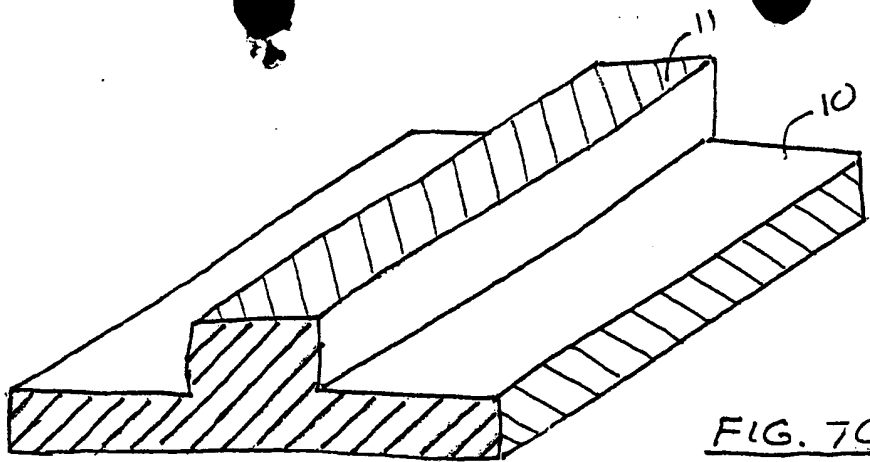


FIG. 7C

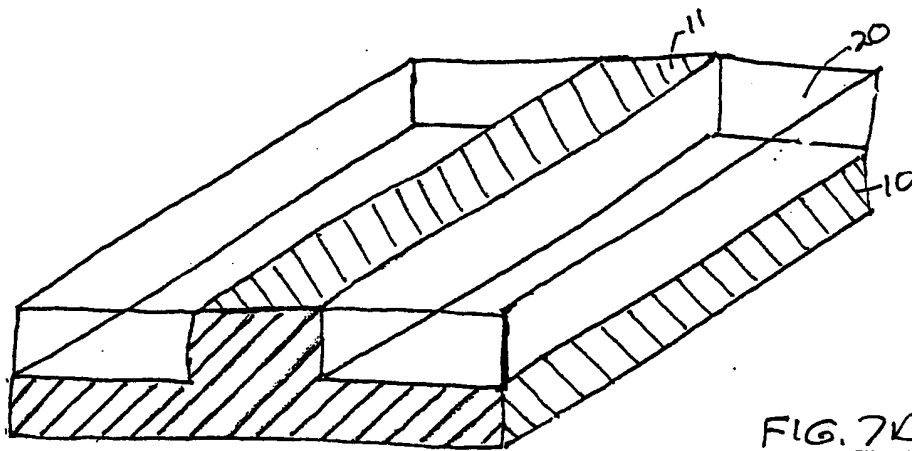


FIG. 7D

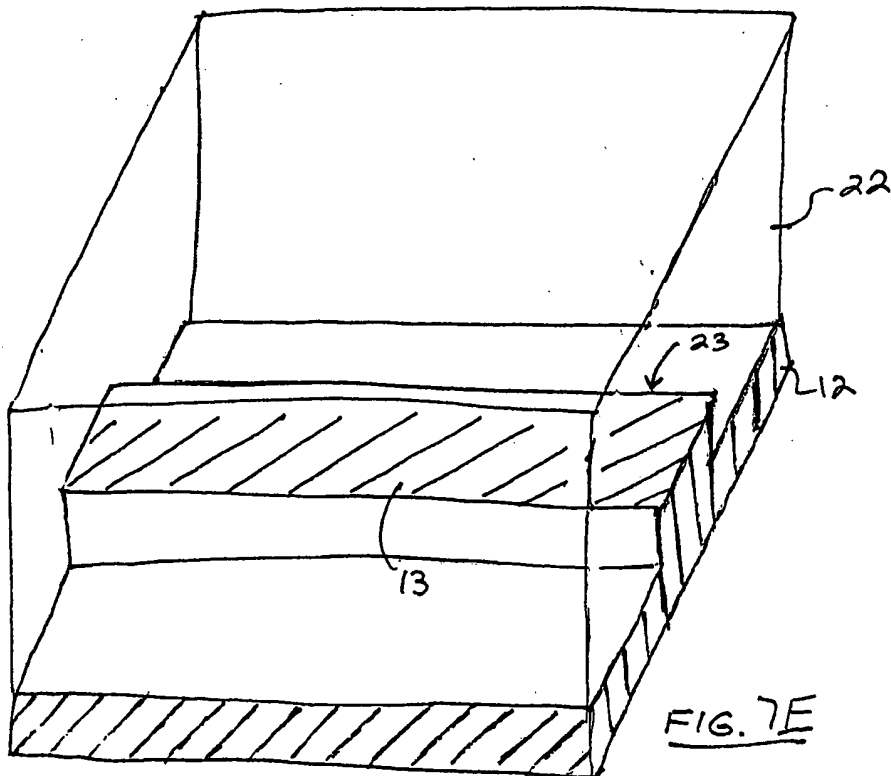


FIG. 7E

004290 0250960

09605500.000000

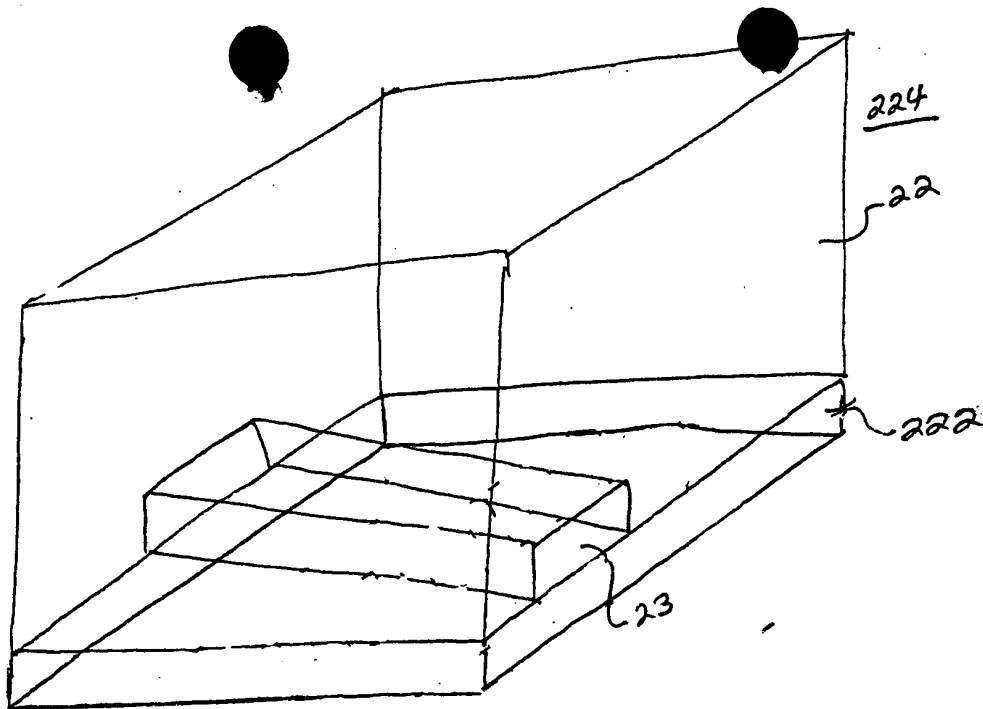


FIG. 7F

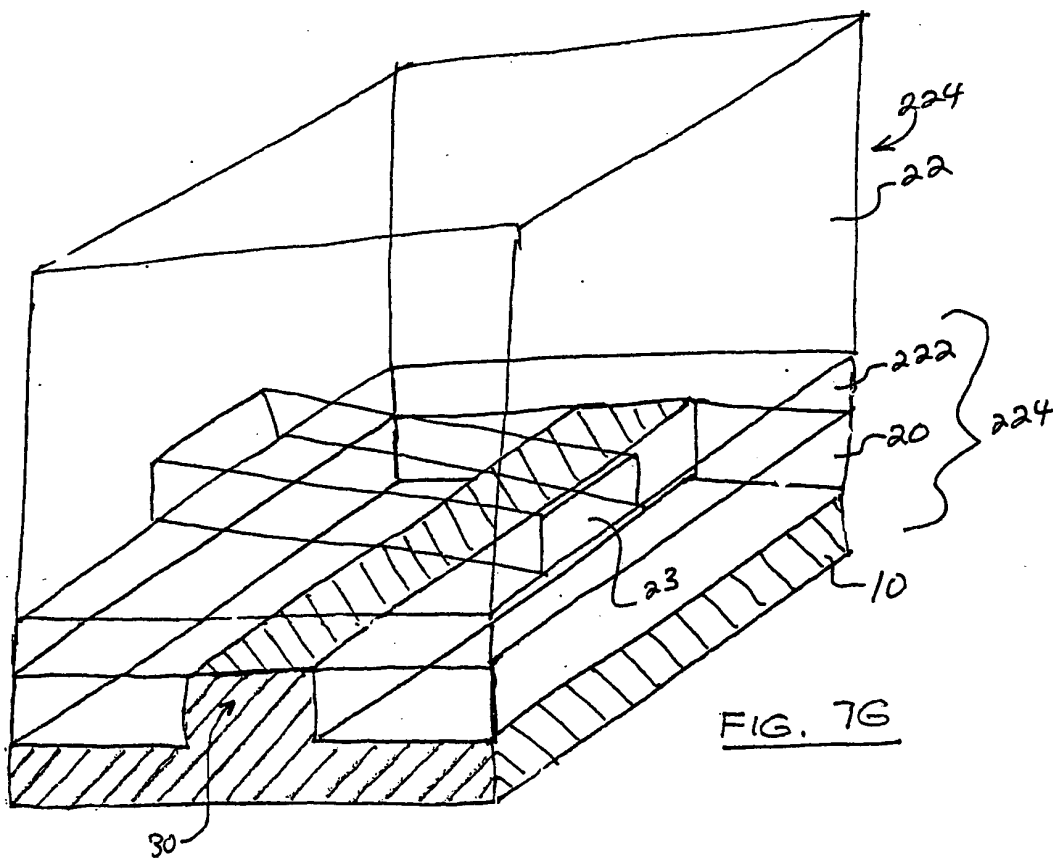


FIG. 7G

FIG 7B

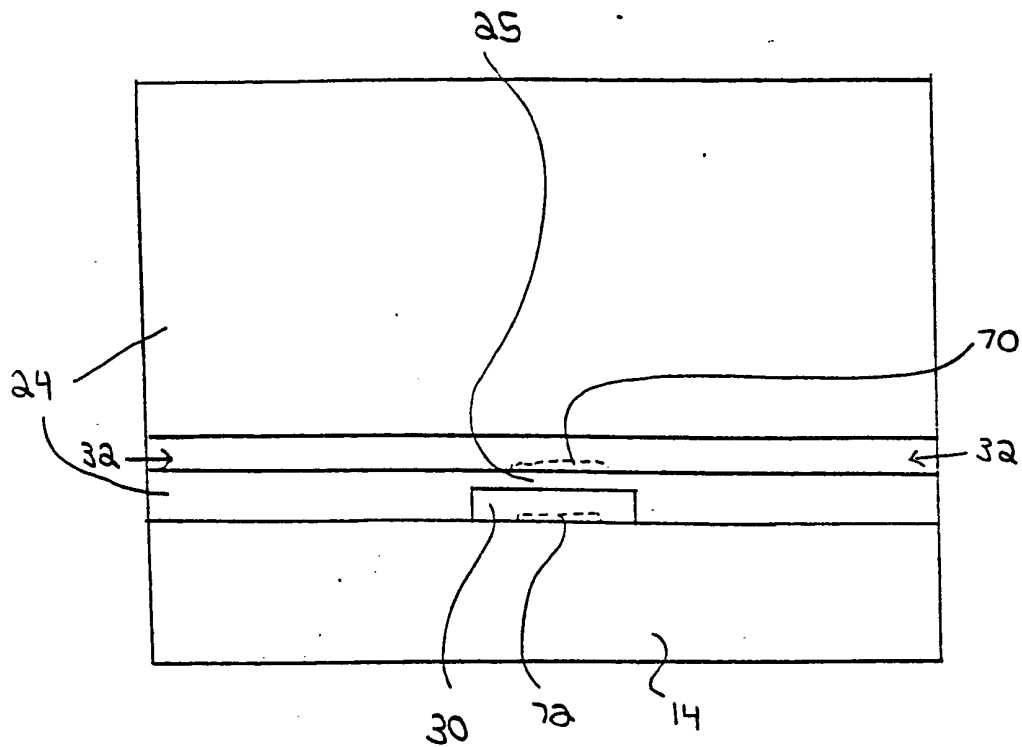


FIG 7H

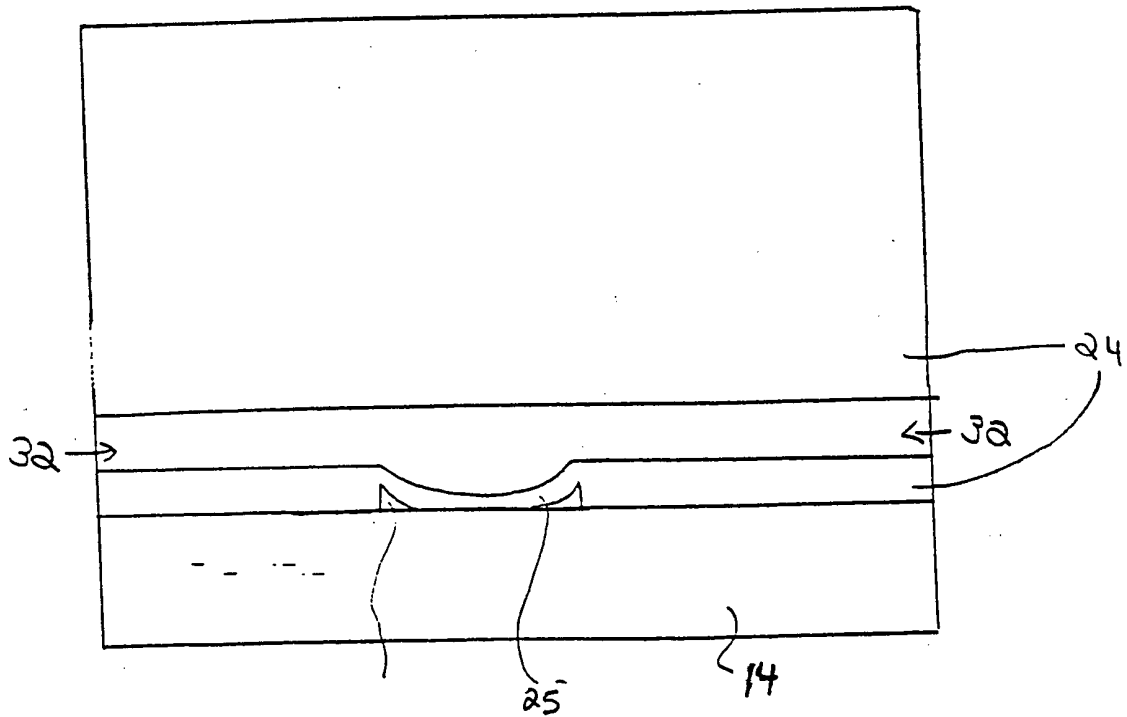
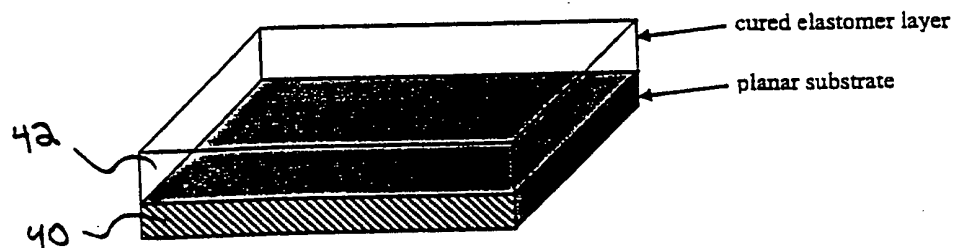
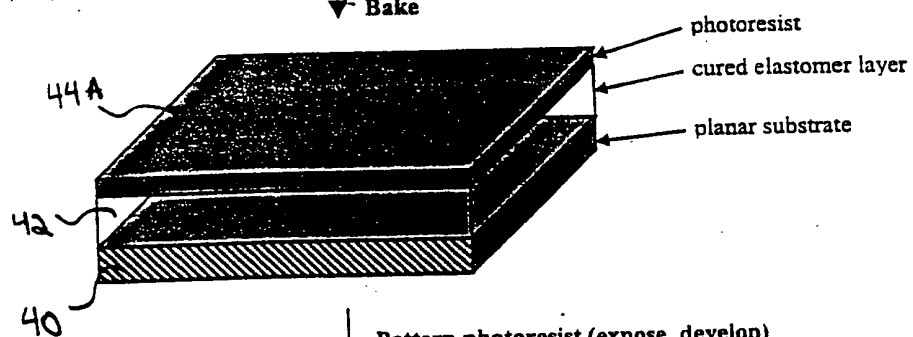


Figure 8



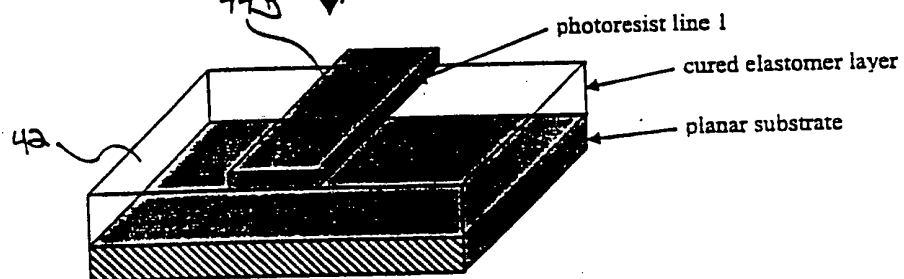
Spincoat photoresist  
↓ Bake

FIG 9



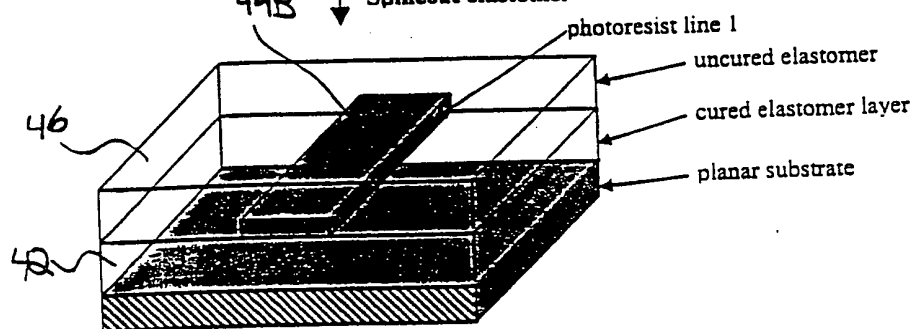
Pattern photoresist (expose, develop)

FIG 10



Spincoat elastomer  
↓

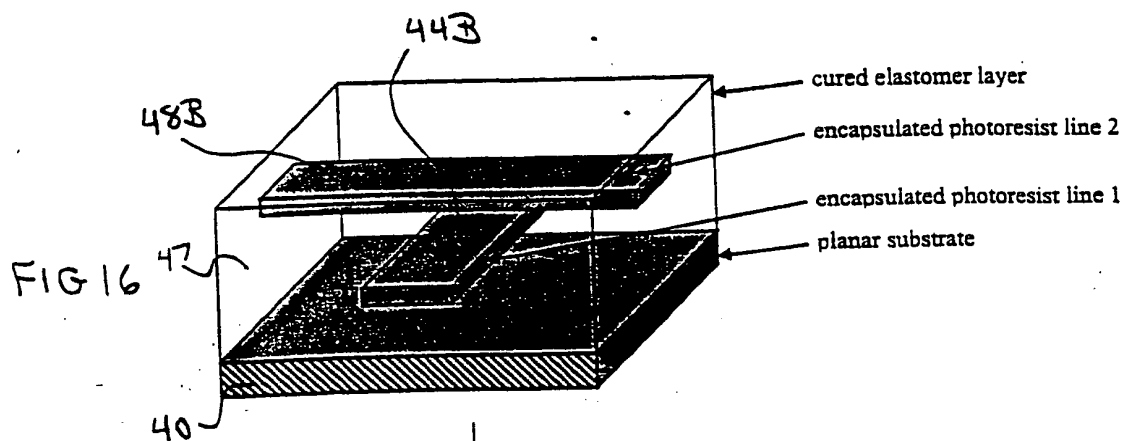
FIG 11



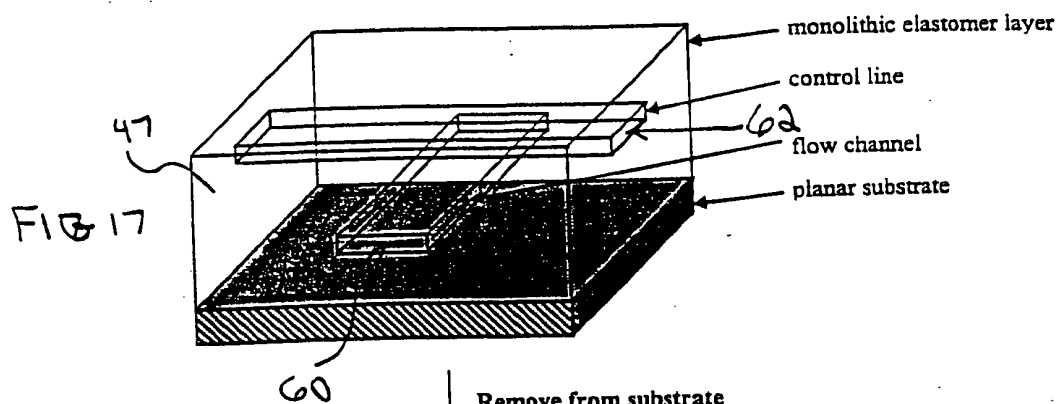
Cure elastomer



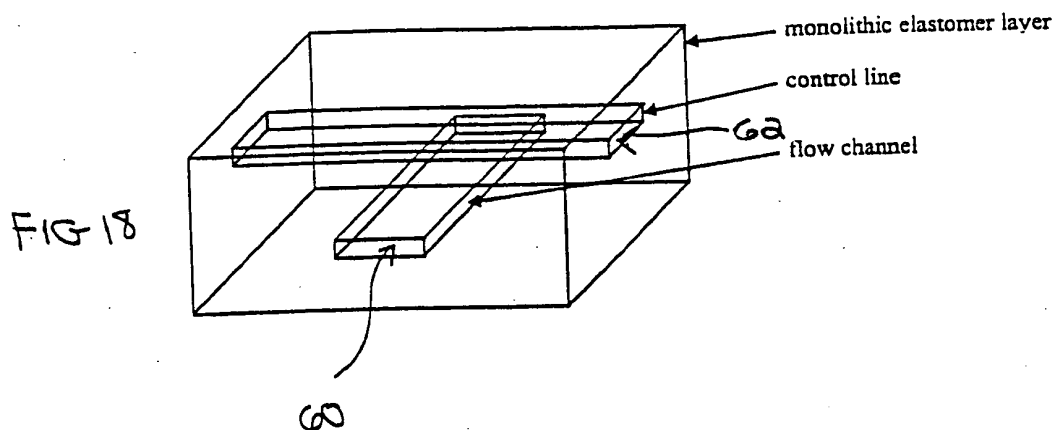
002280 03550960



↓ Dissolve photoresist



↓ Remove from substrate





# Introduction

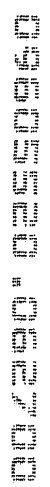
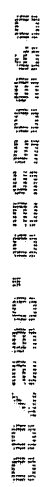
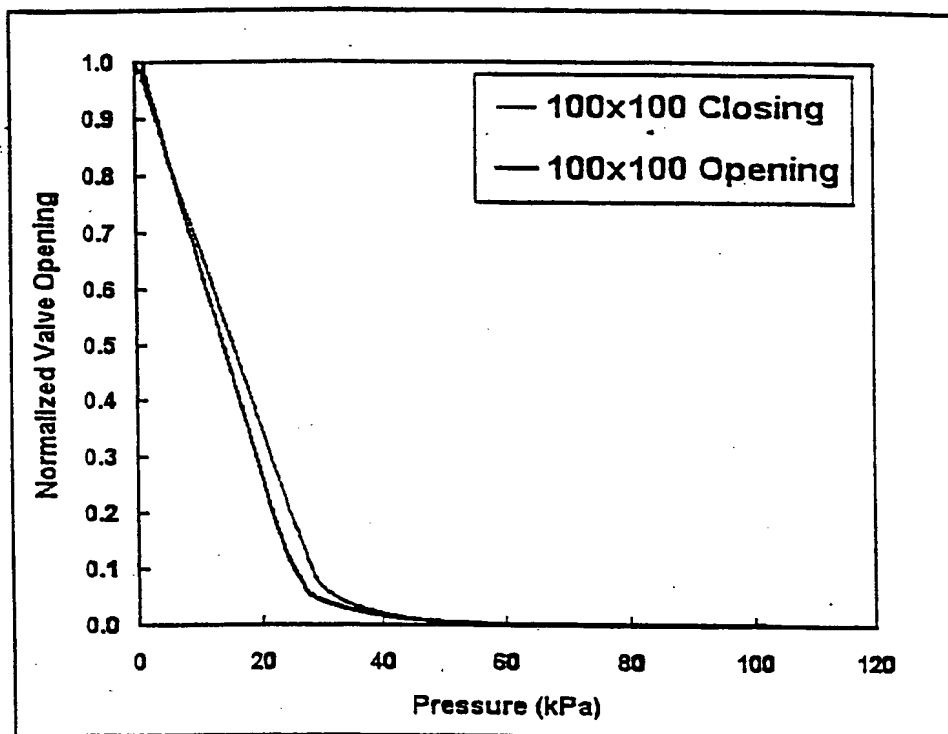
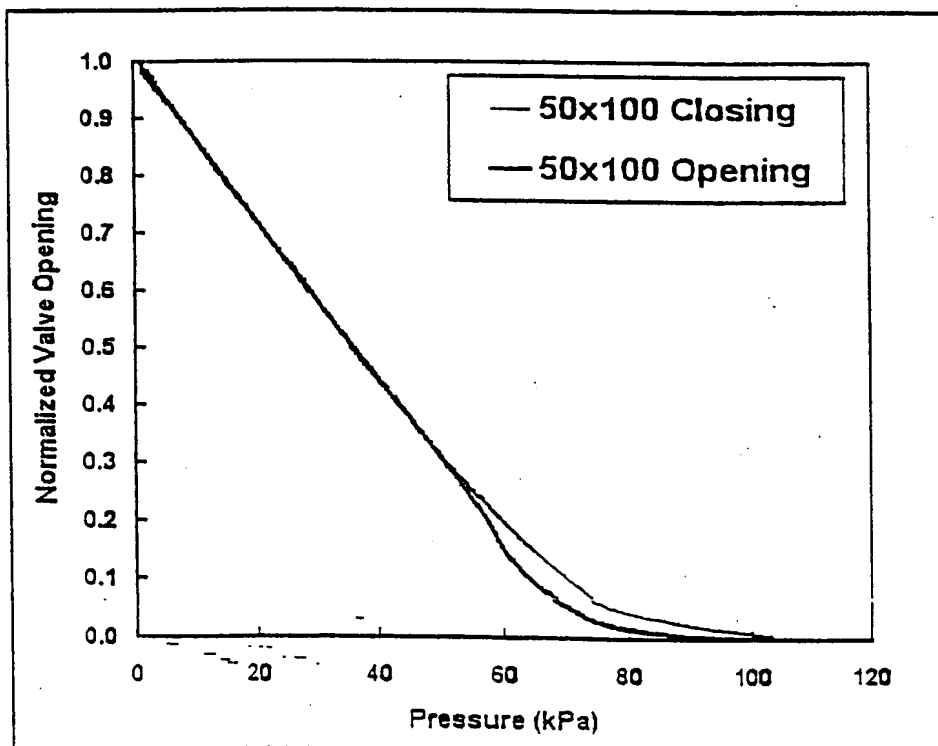
[illegible]

FIG 21



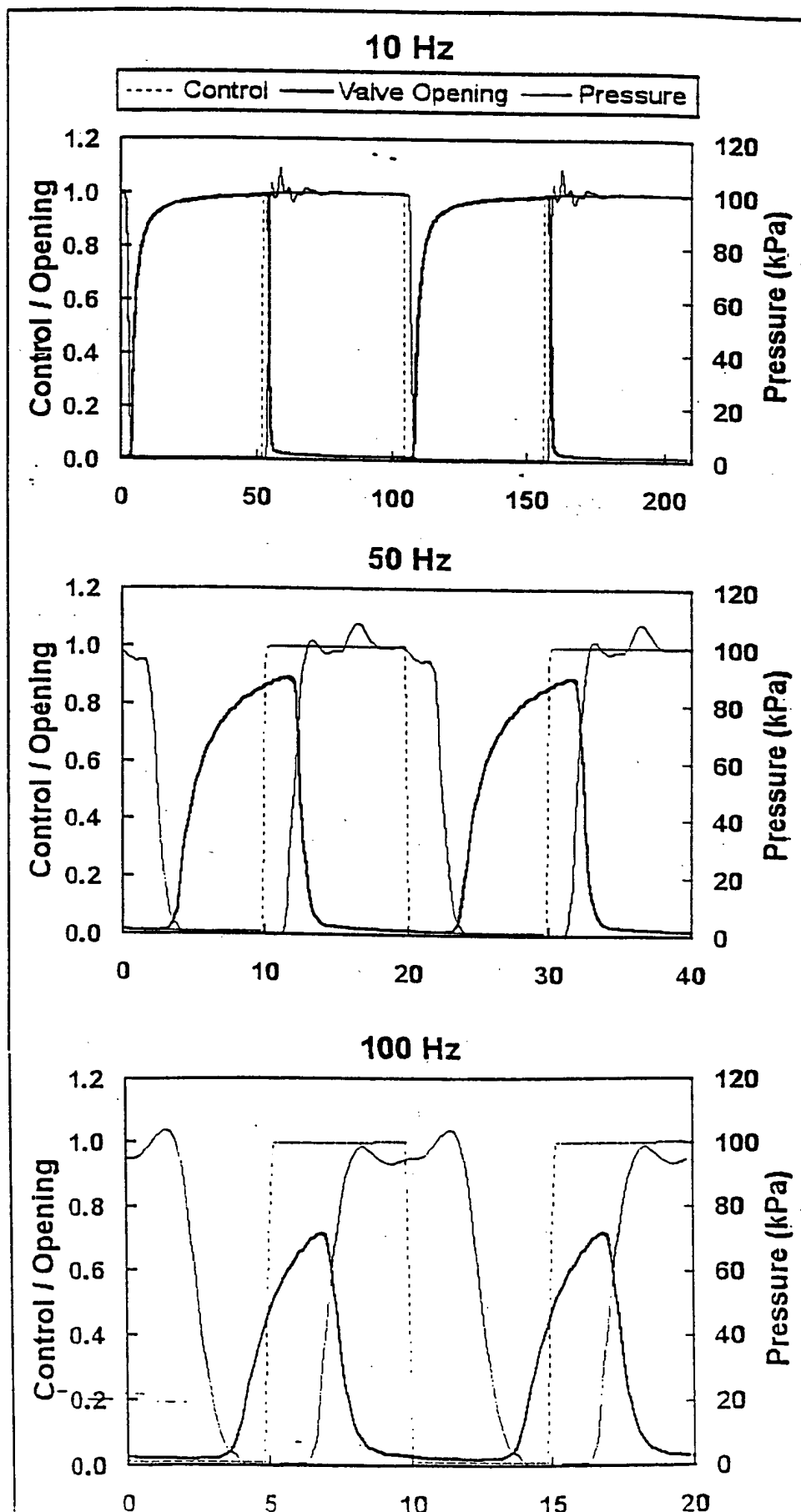
(a).



(b).

002290" 02550950

FIG 22



002280 02550950

FIG 23A

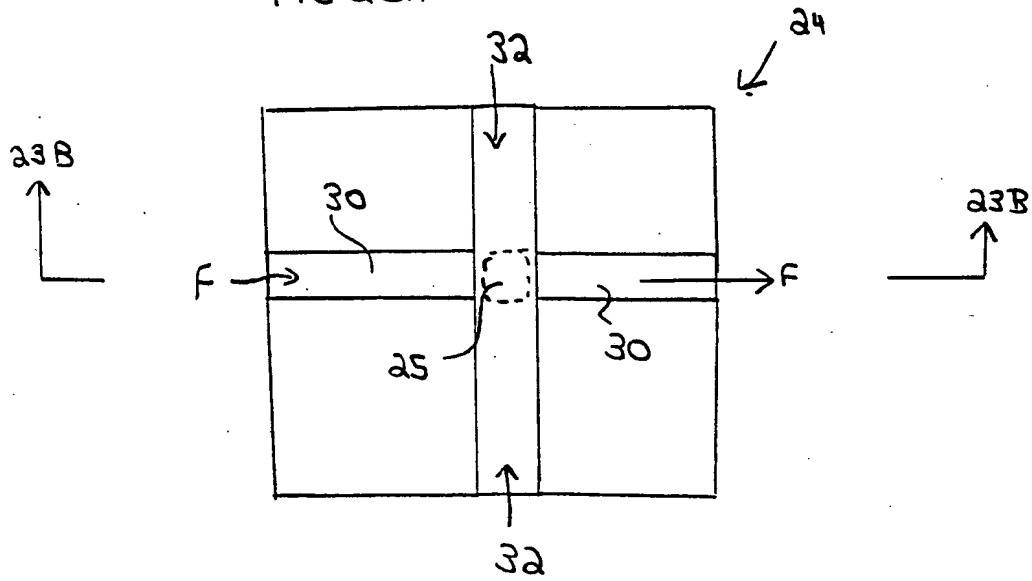


FIG 24A

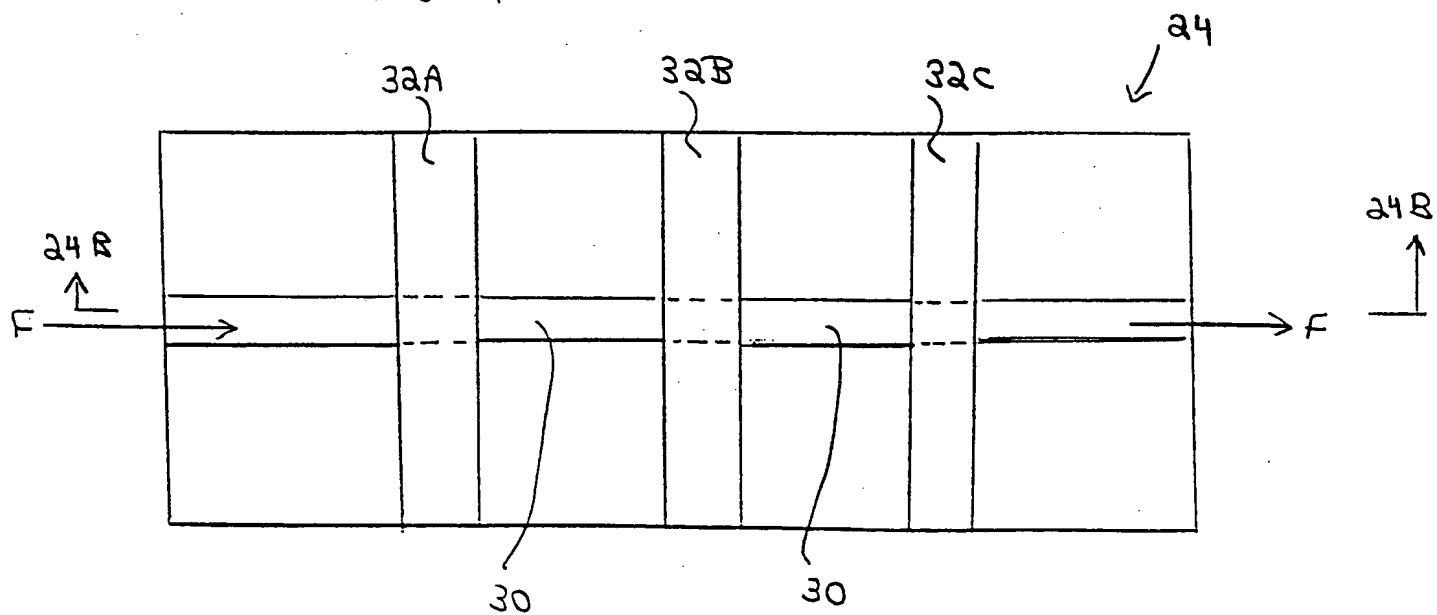


FIG 23 B

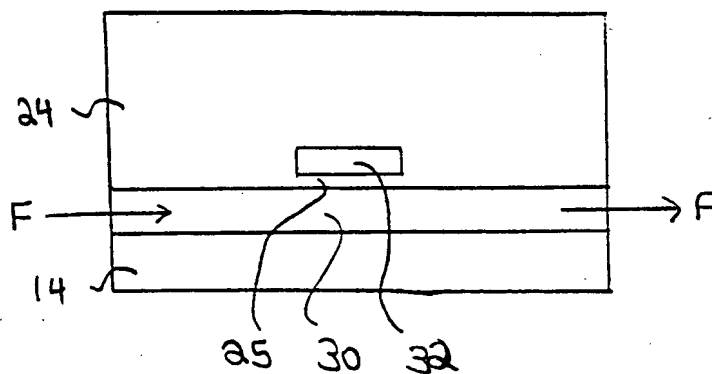
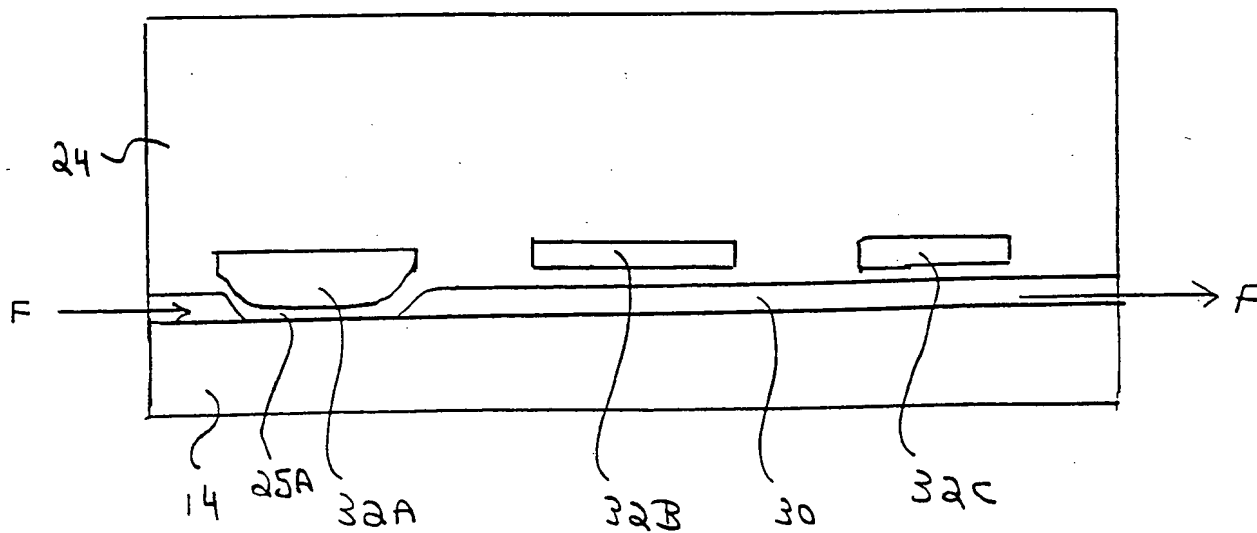


FIG 24 B



00/2200\*02550950

FIG 25

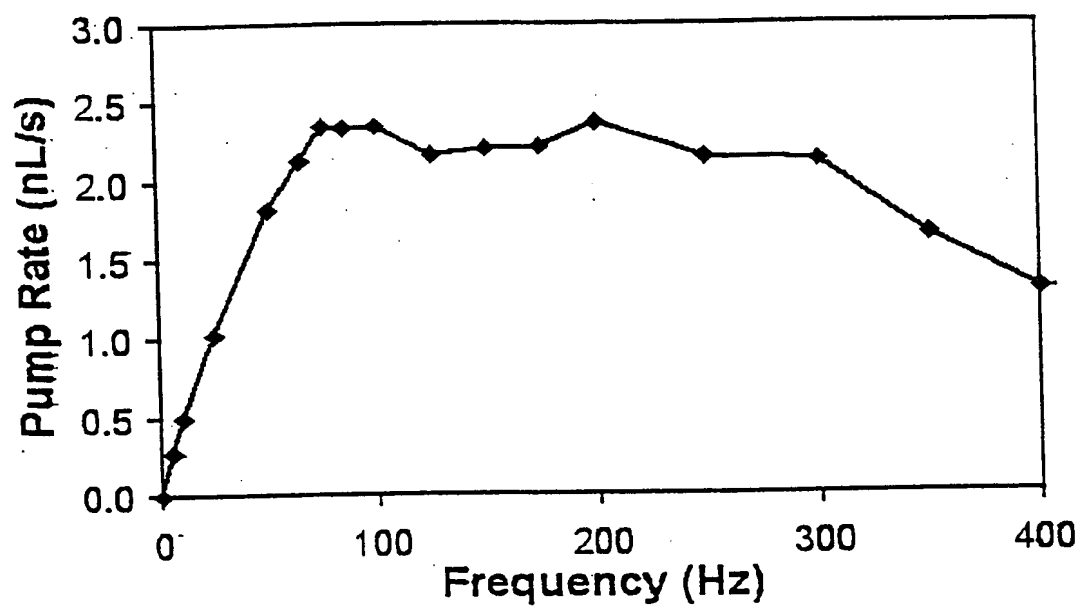


FIG 26A

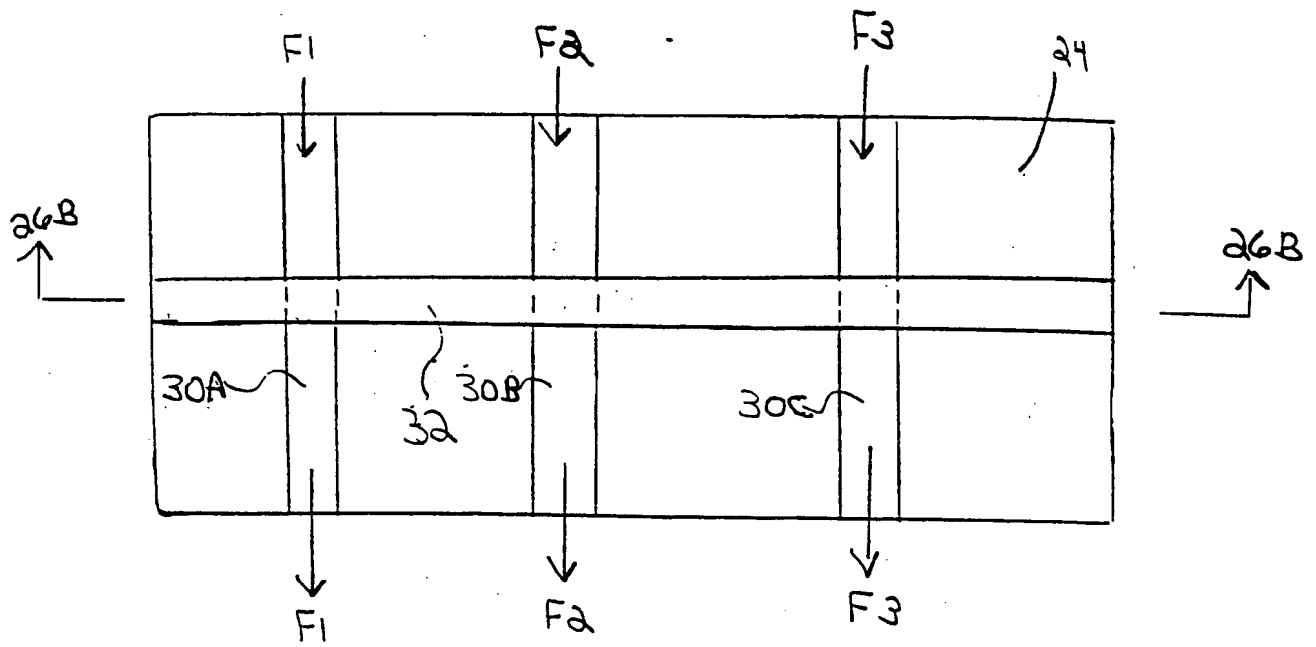


FIG 26B

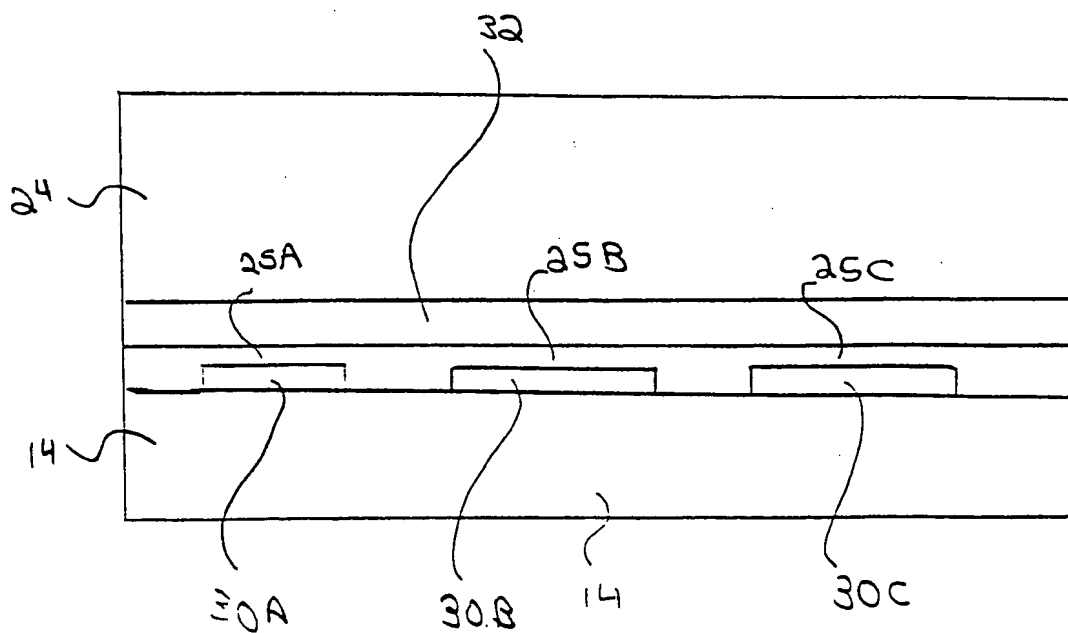


FIG 27

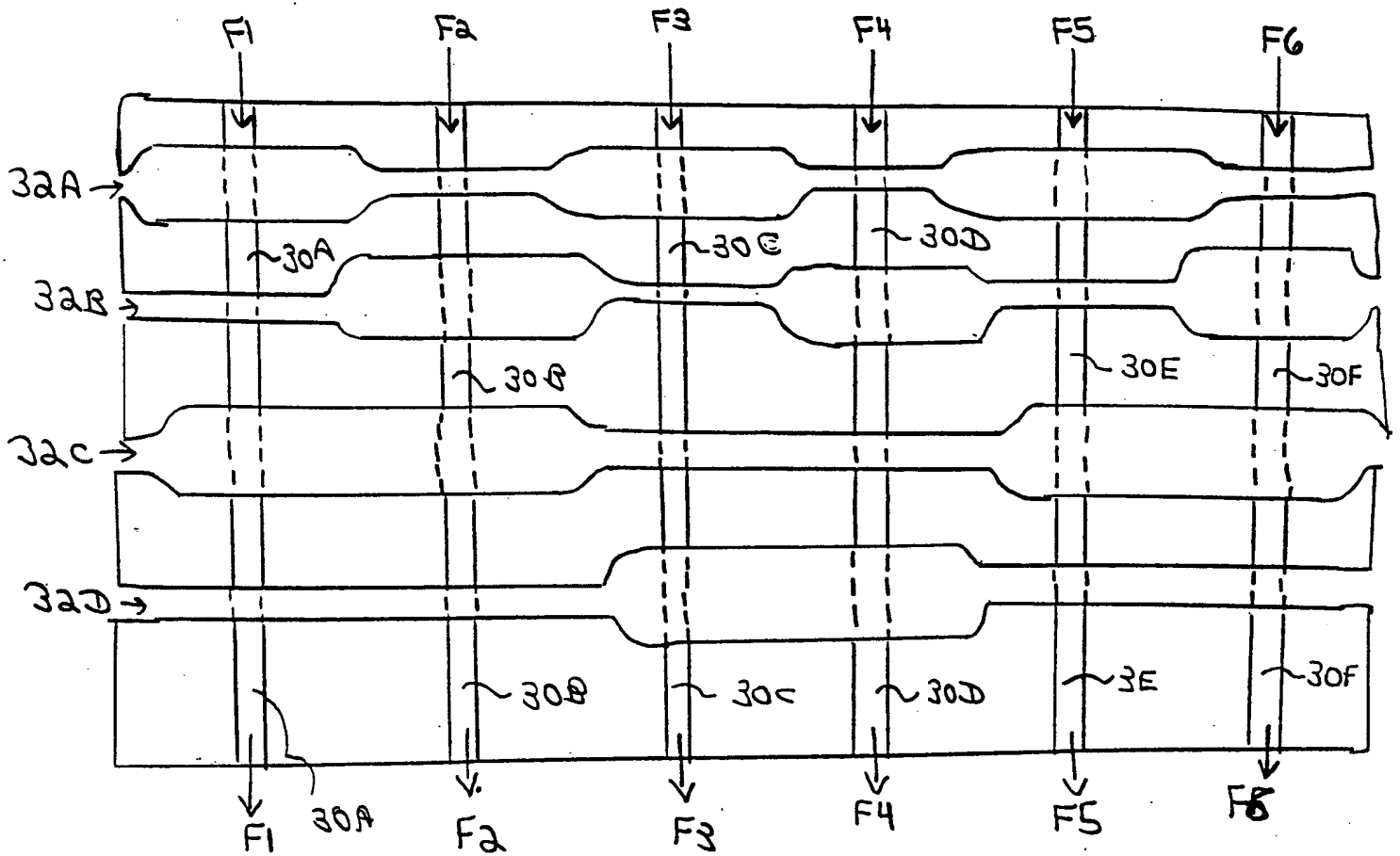




FIG 28A

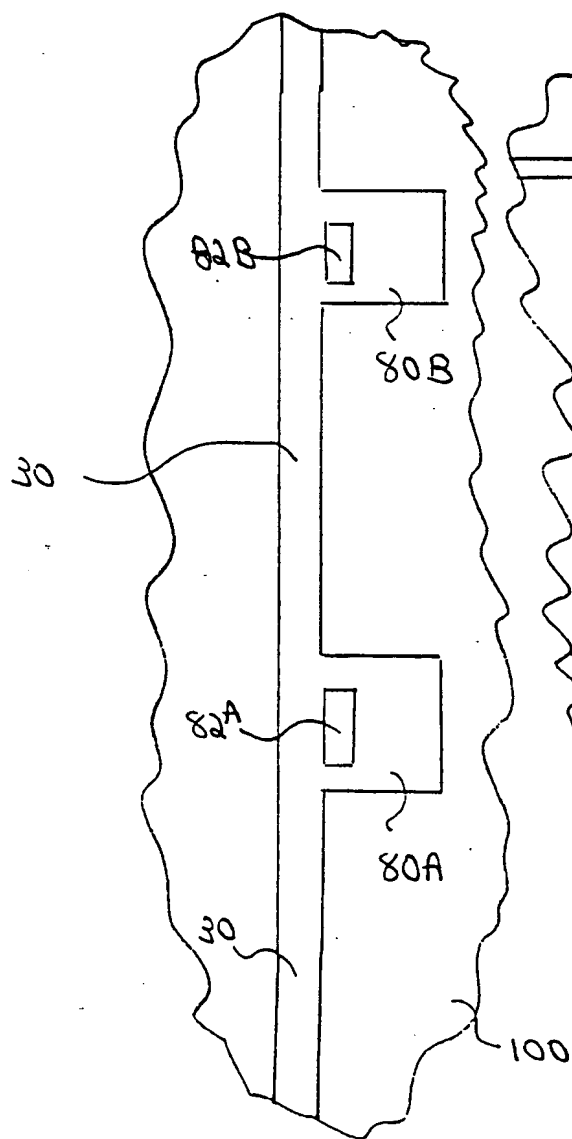
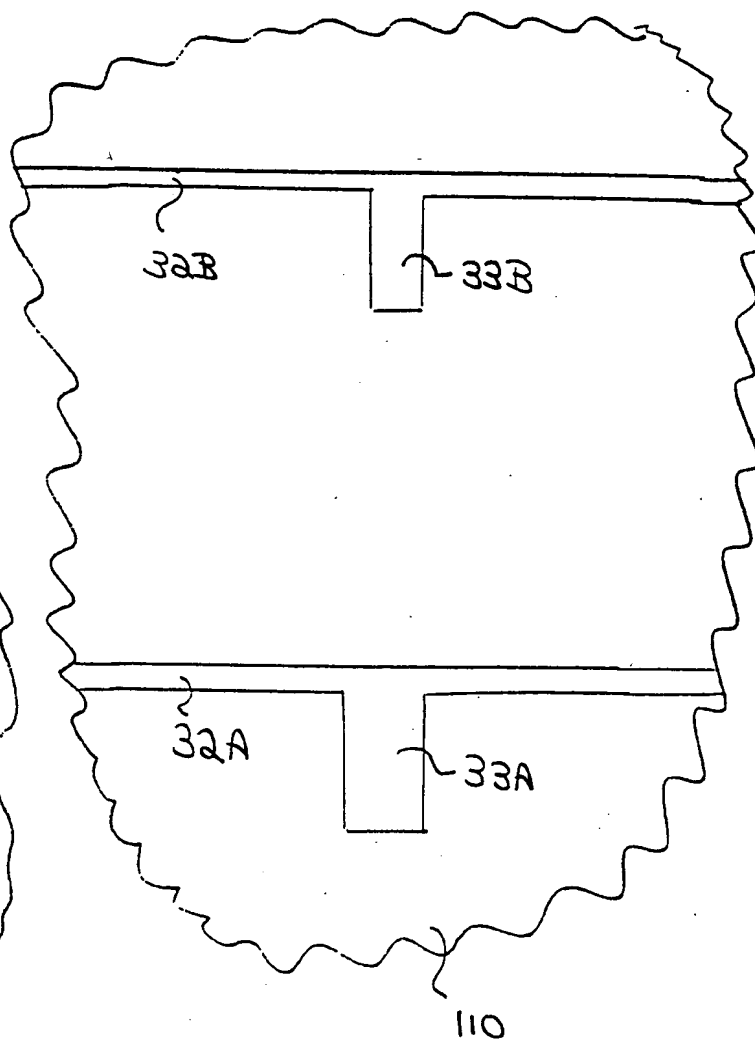


FIG 28B



09605520.062700

FIG 28C

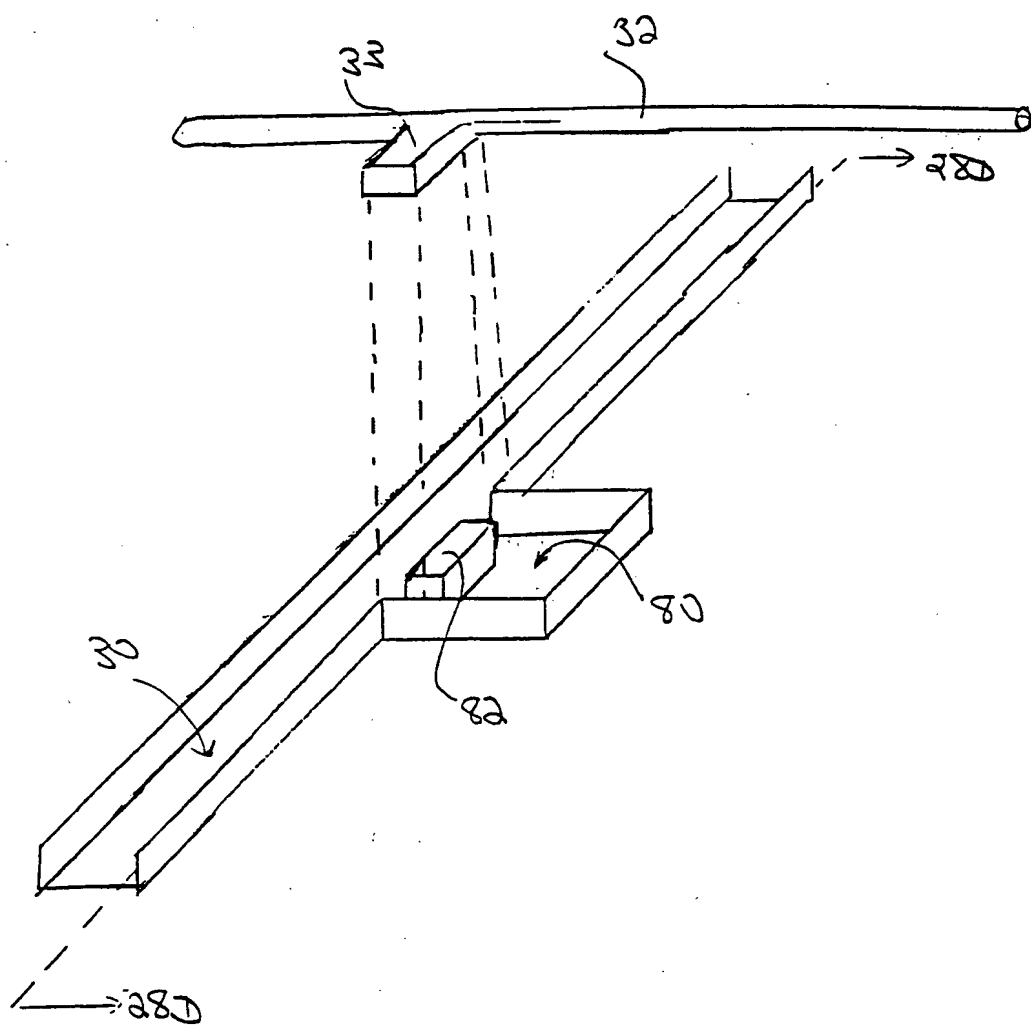


FIG 8D

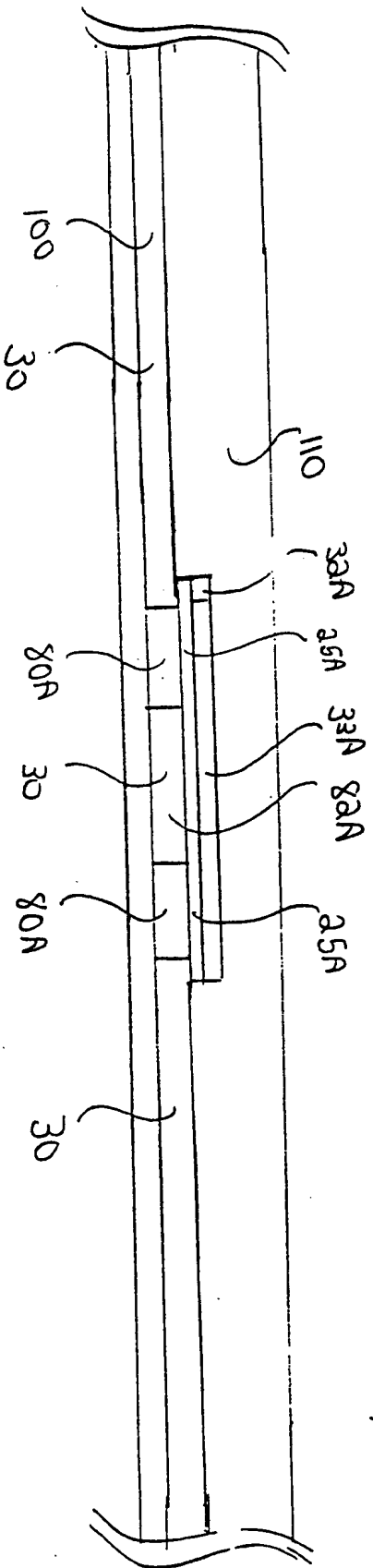
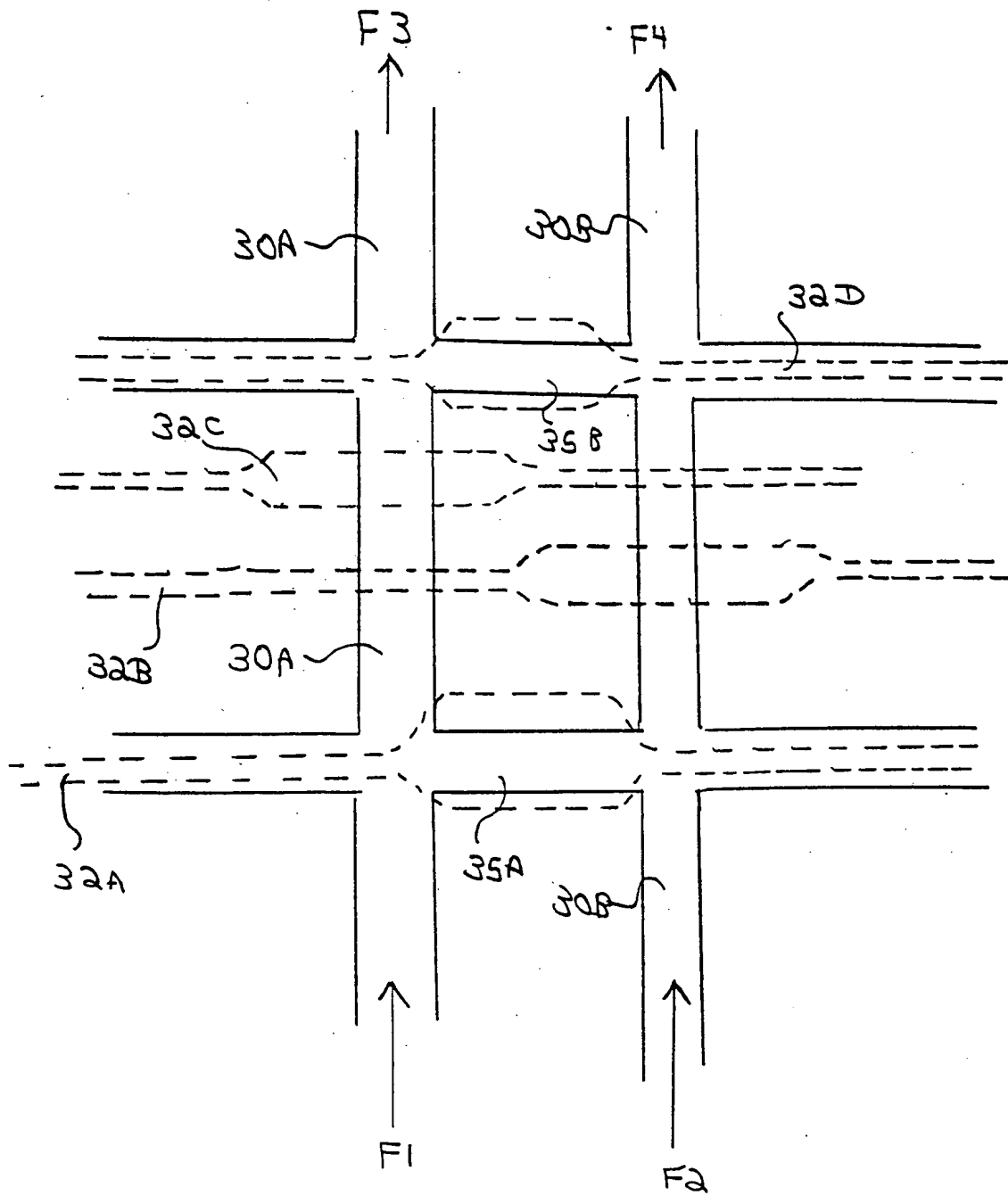


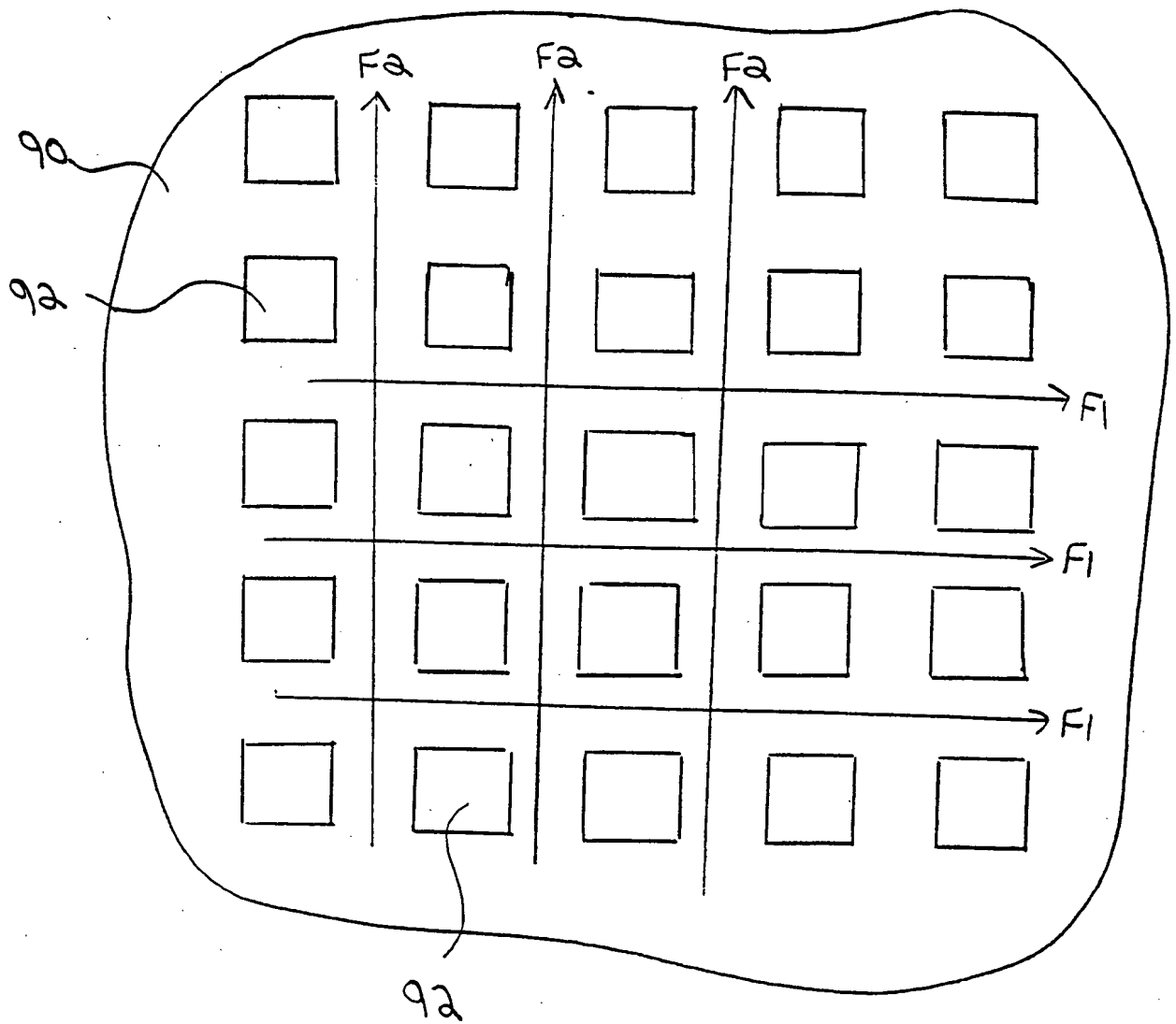


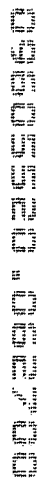
FIG 30



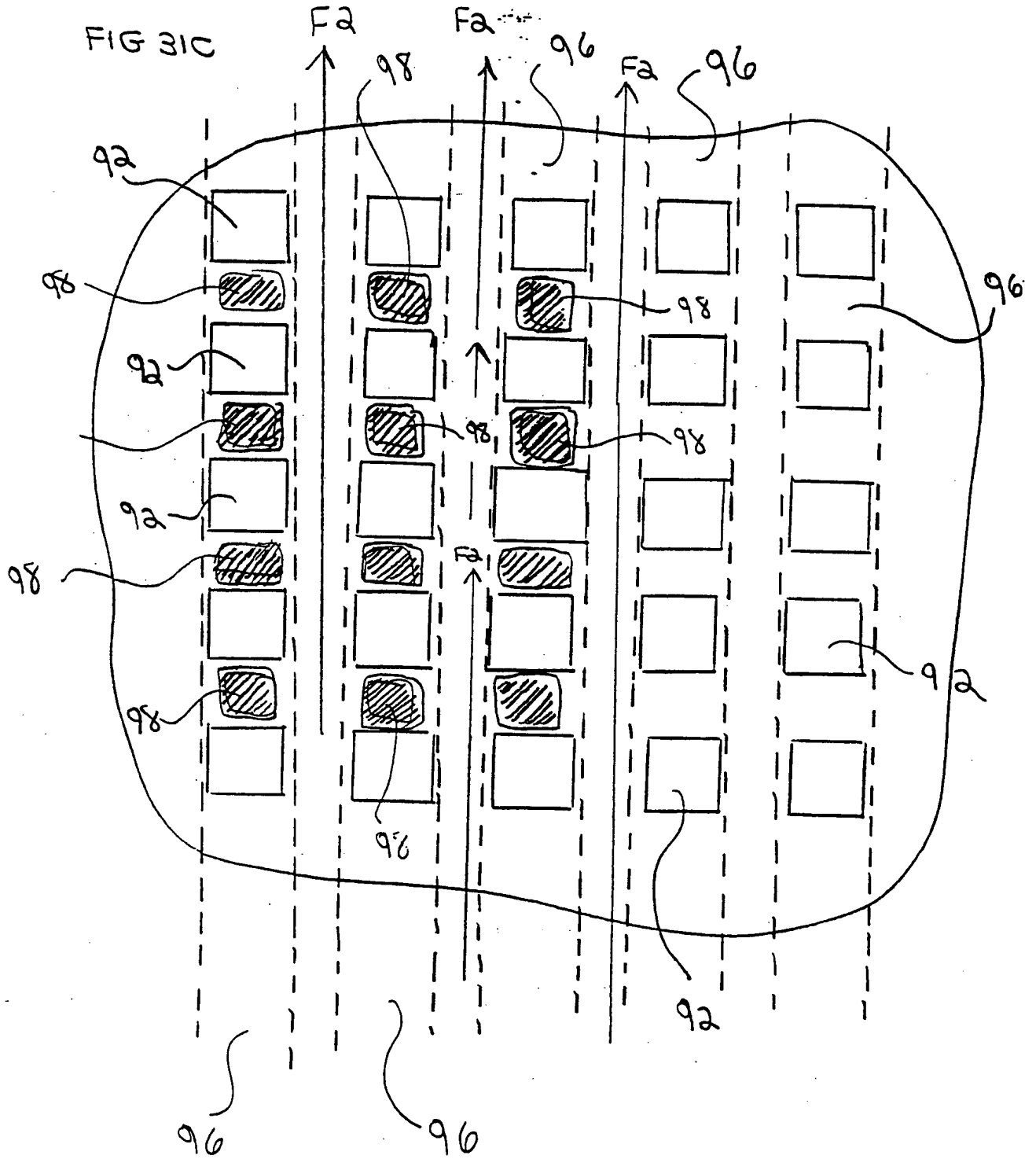
002200 00000000

FIG 31A





Fa-





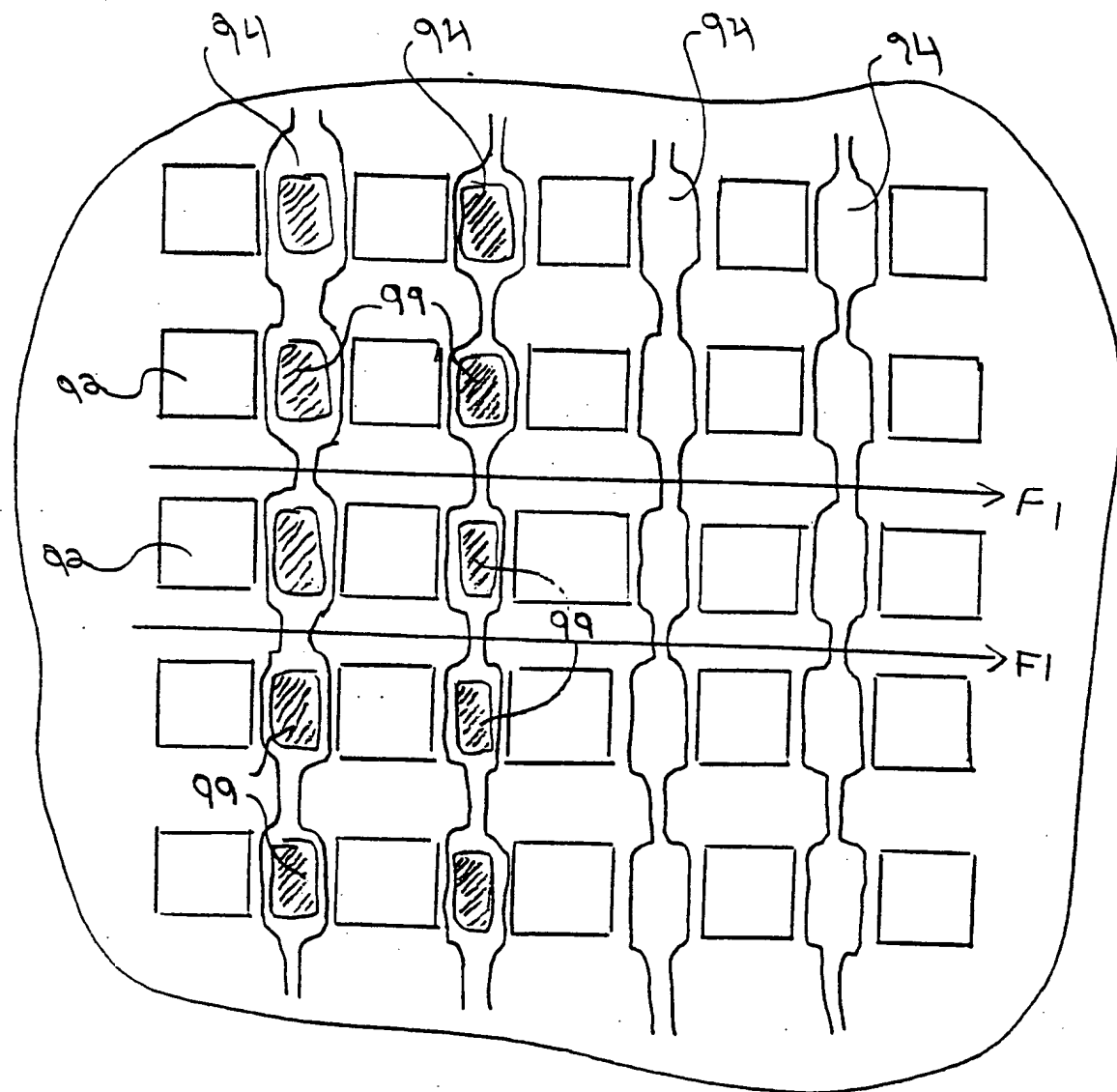
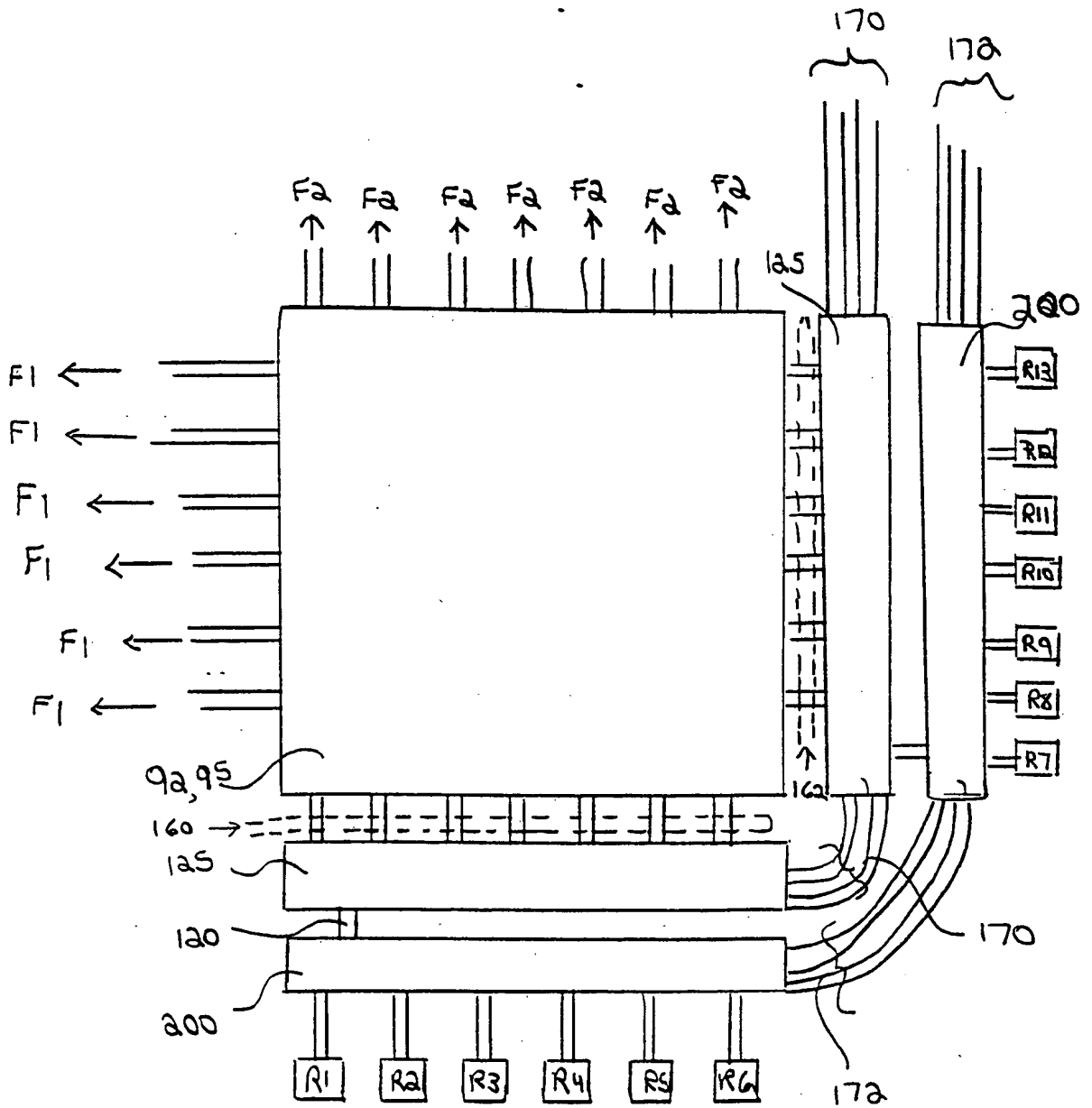
[illegible]



FIG 33



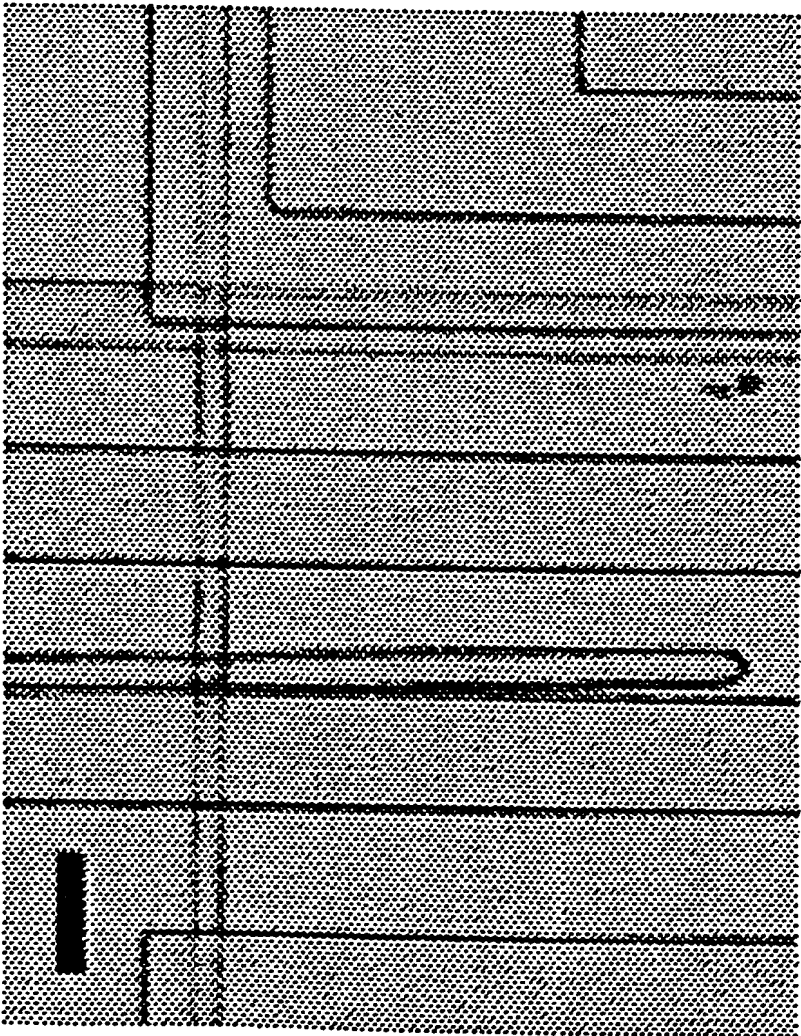


FIG. 34

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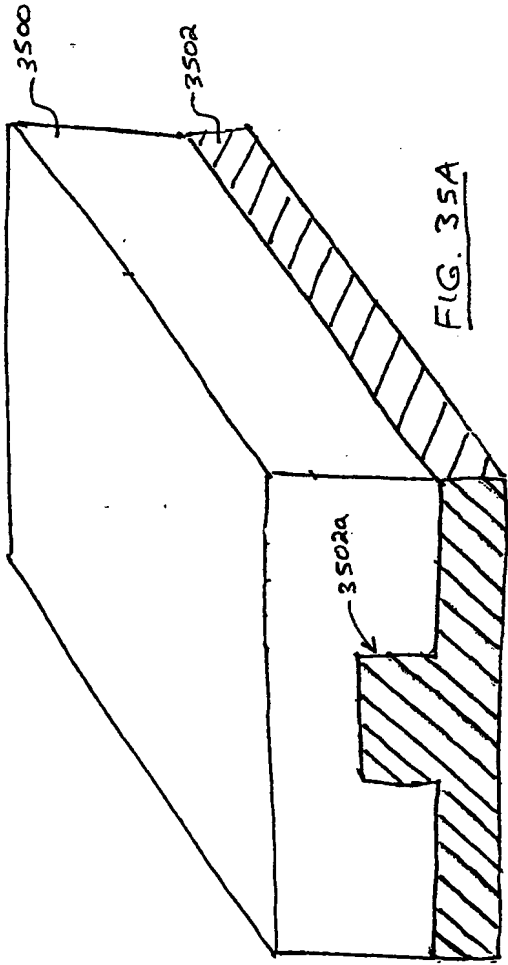


FIG. 35A

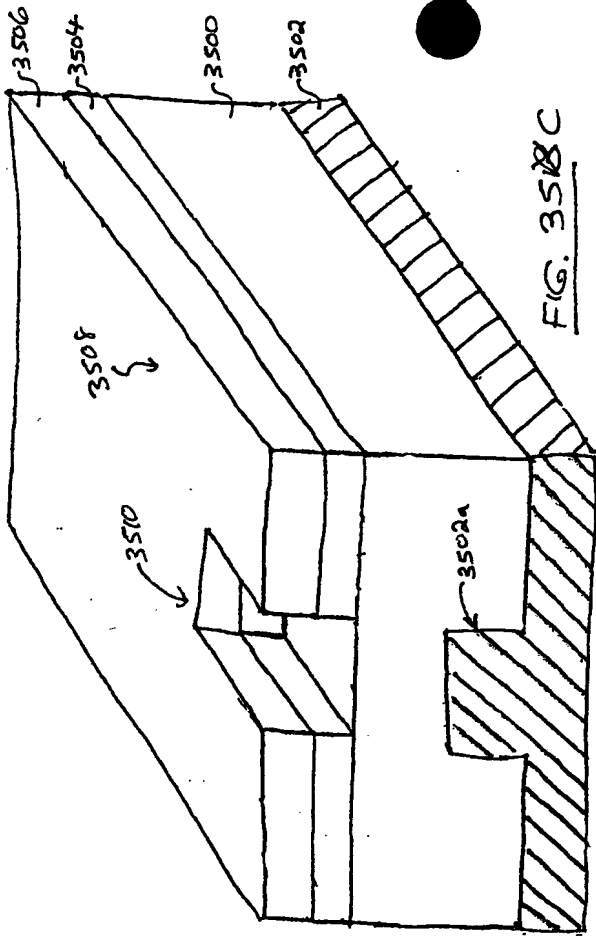


FIG. 35B

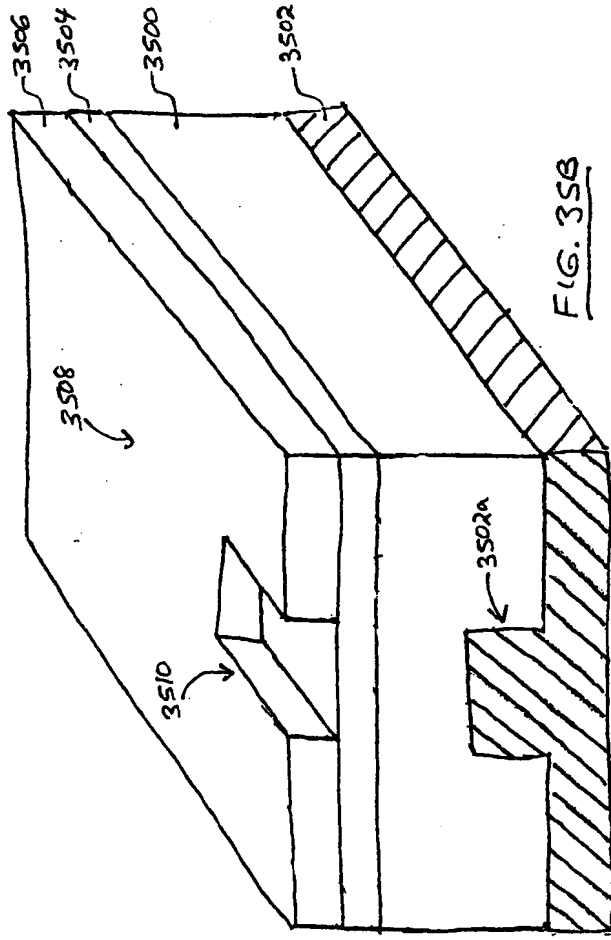


FIG. 35C

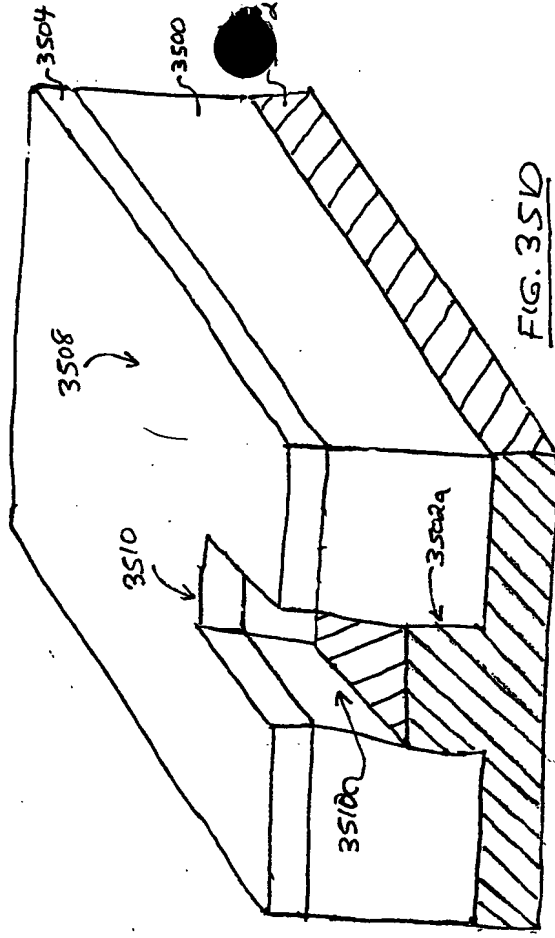


FIG. 35D



09605530.062700

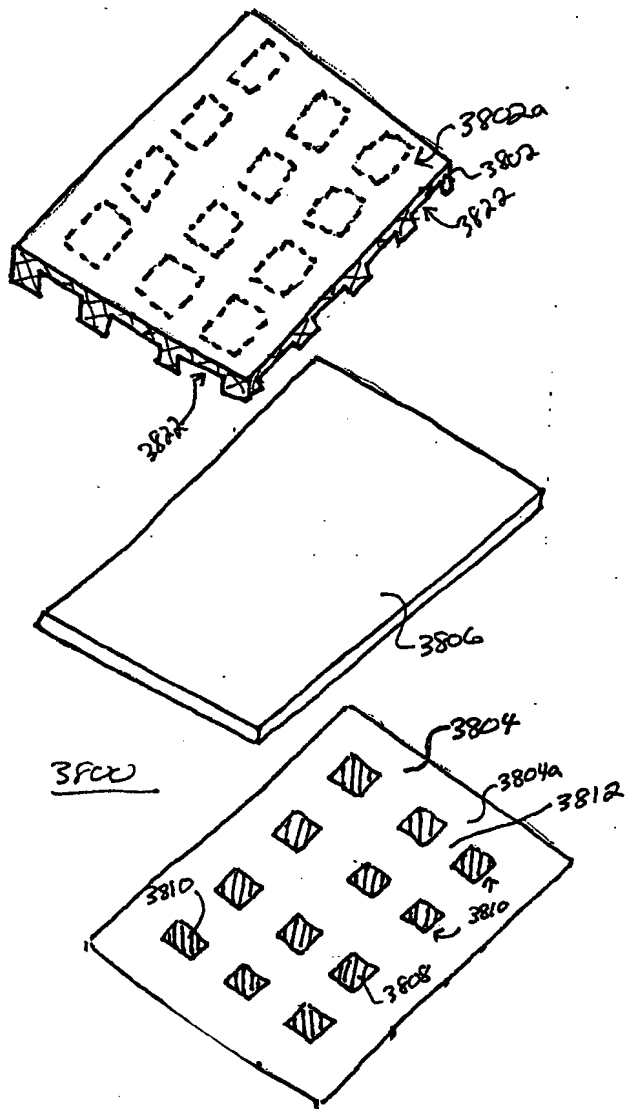


FIG. 38A







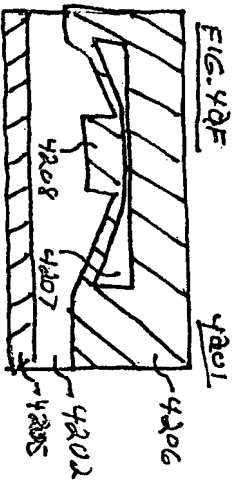
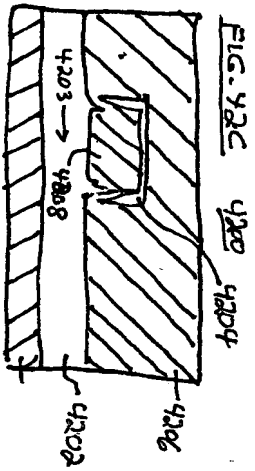
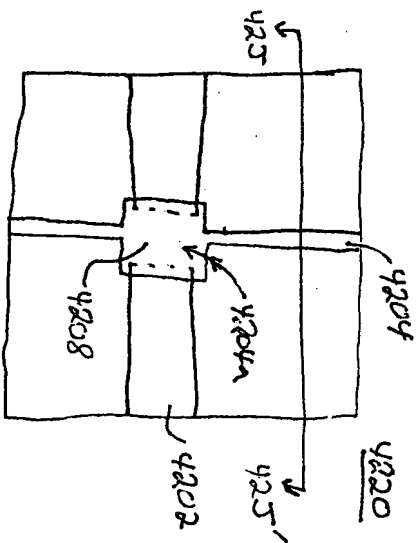
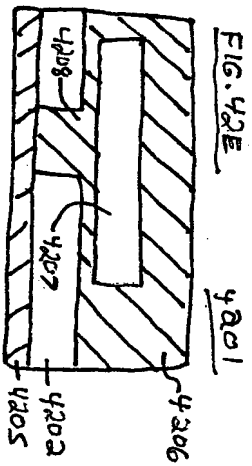
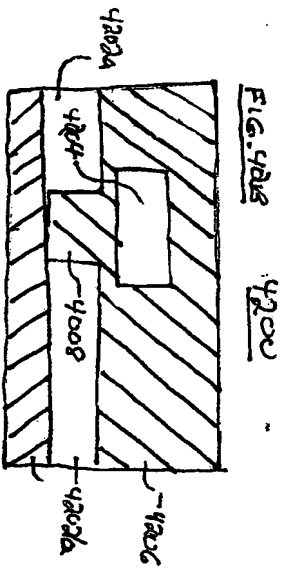
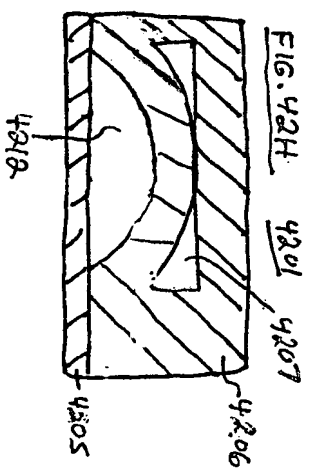
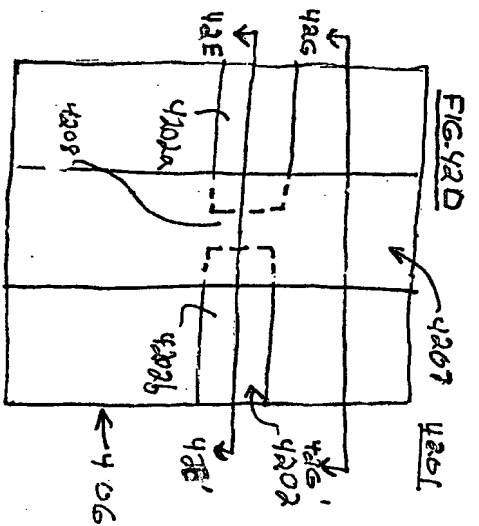
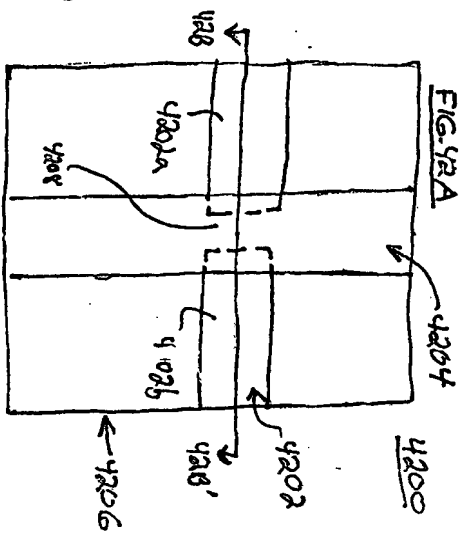
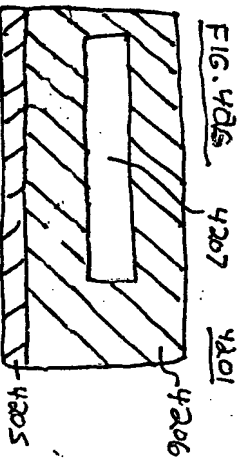
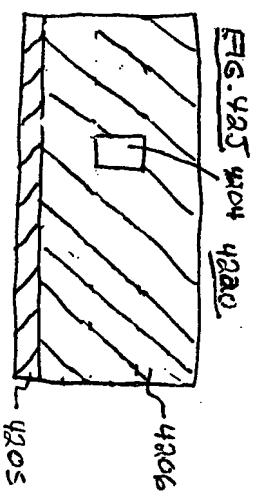


FIG. 420I



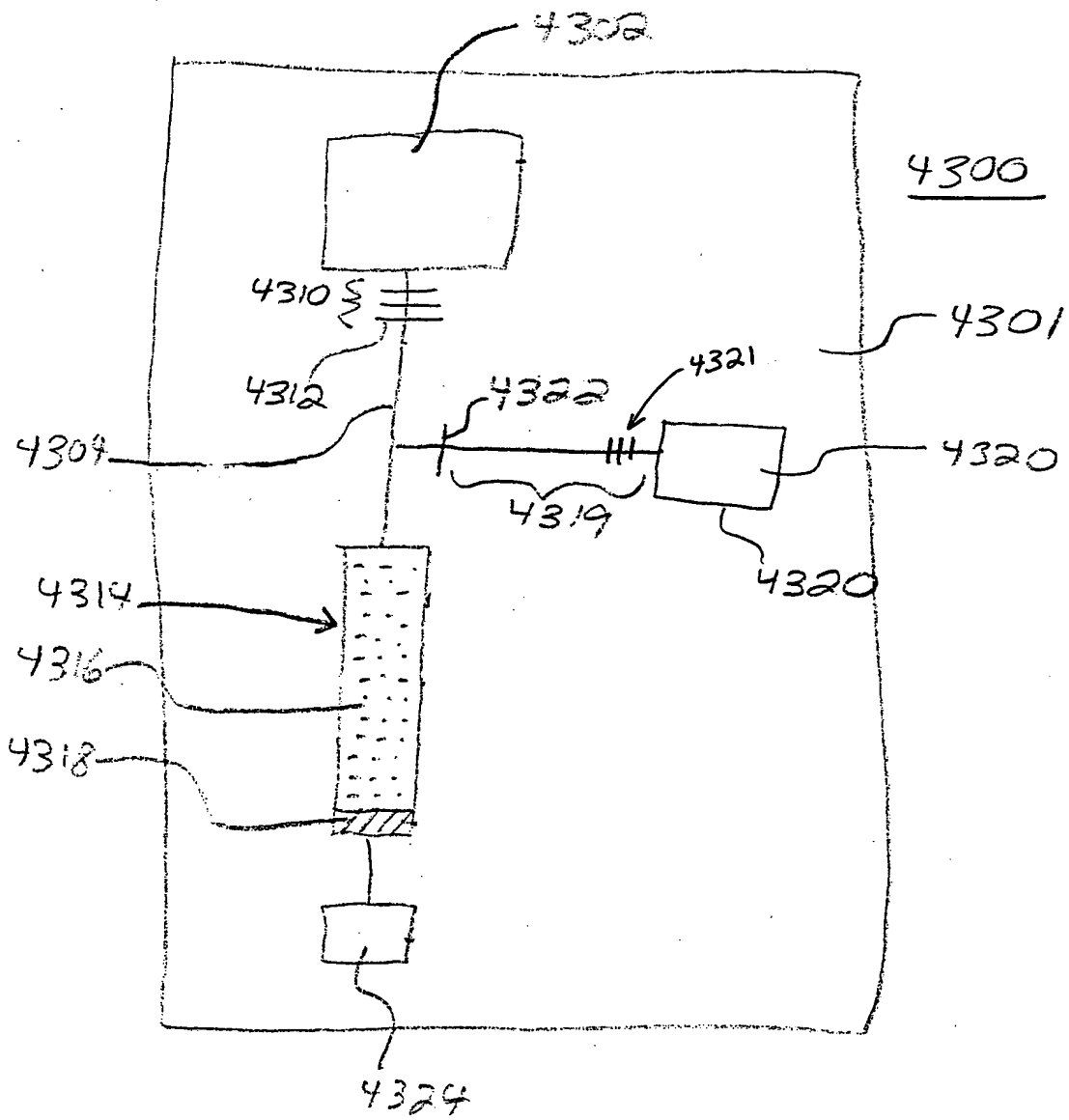
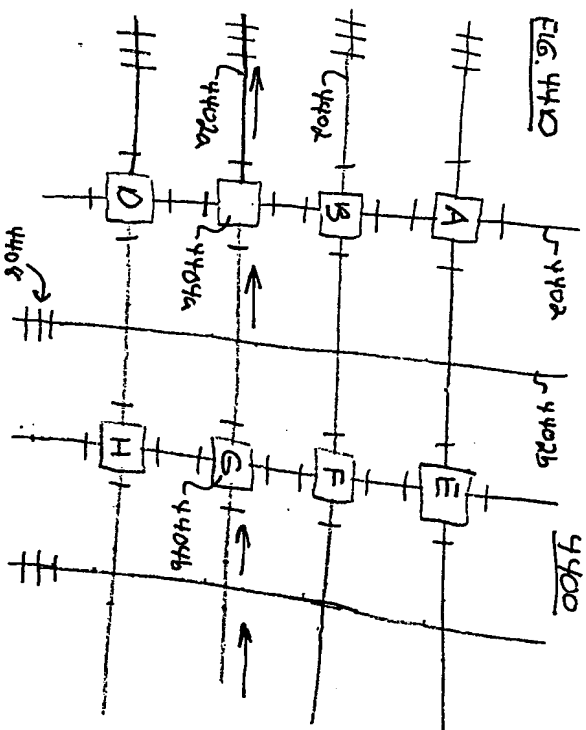
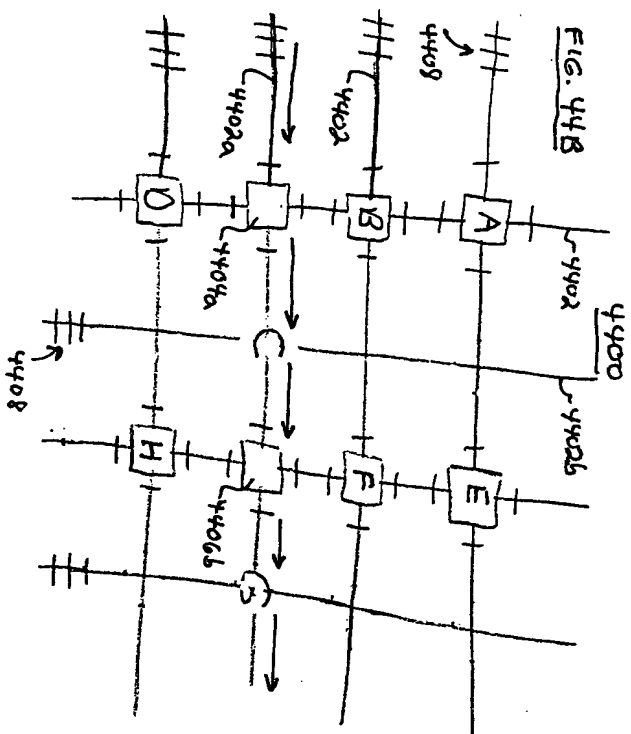
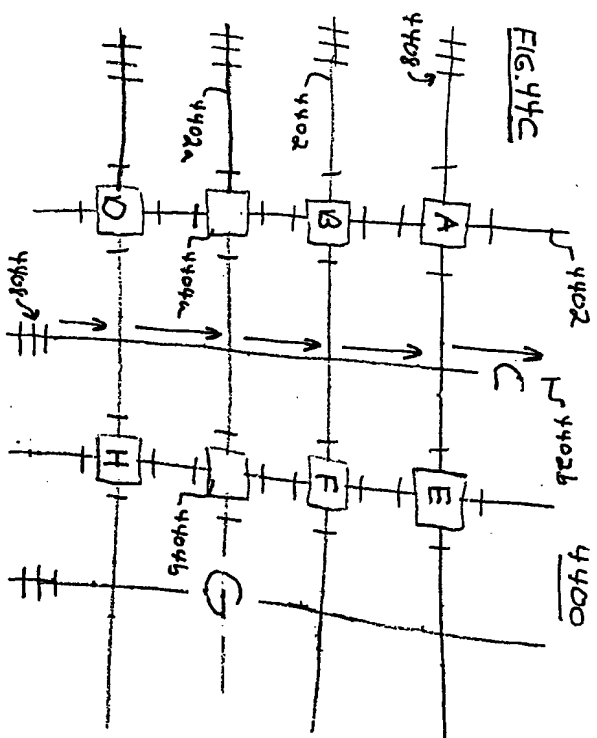
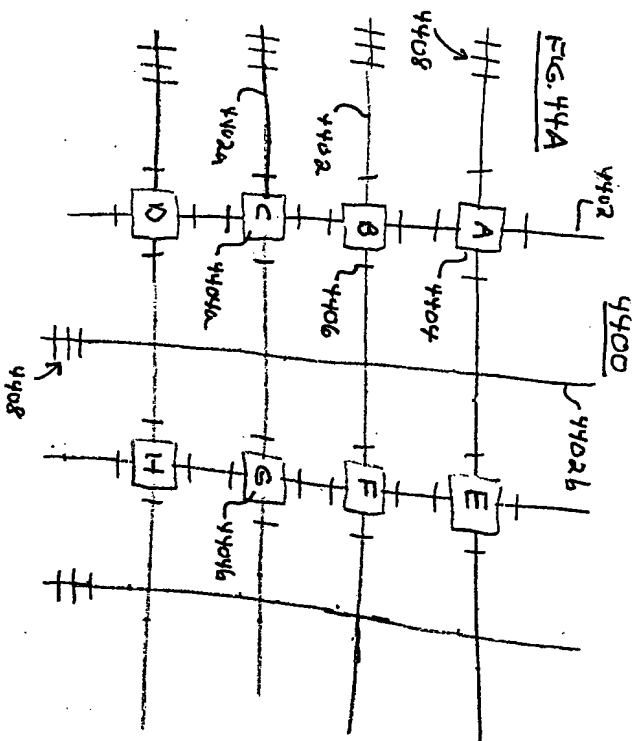


FIG. 43



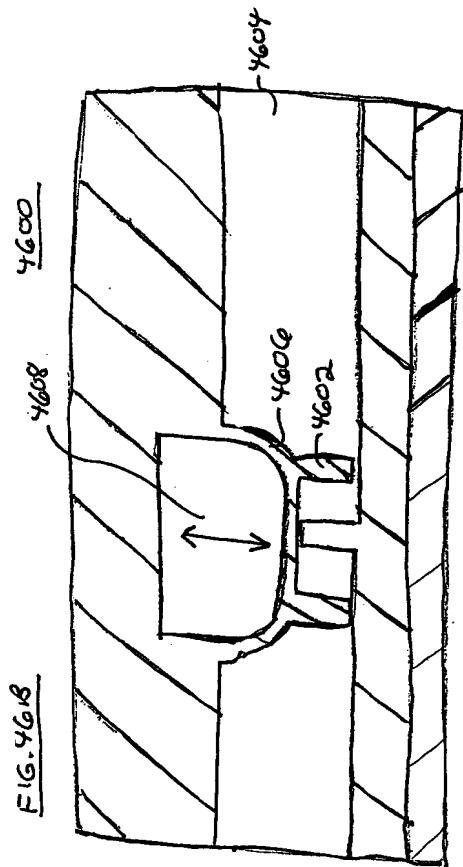
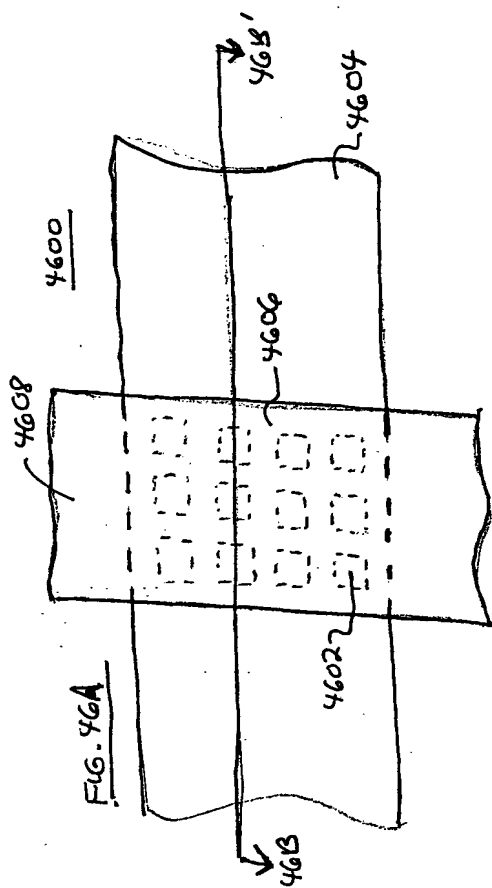
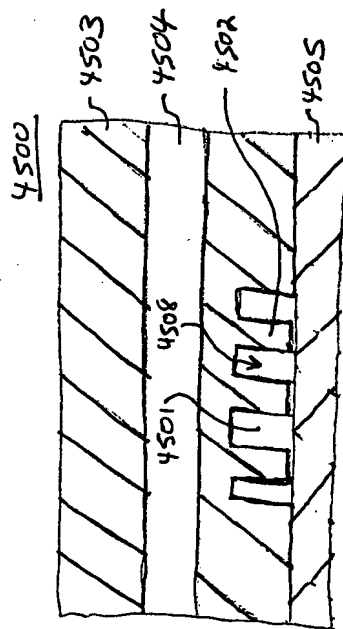
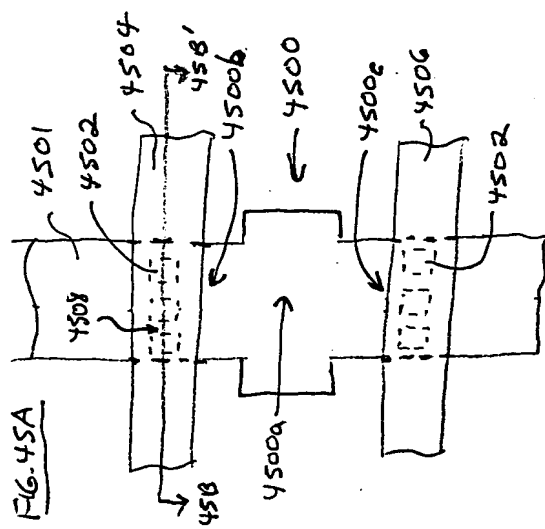


FIG. 45B



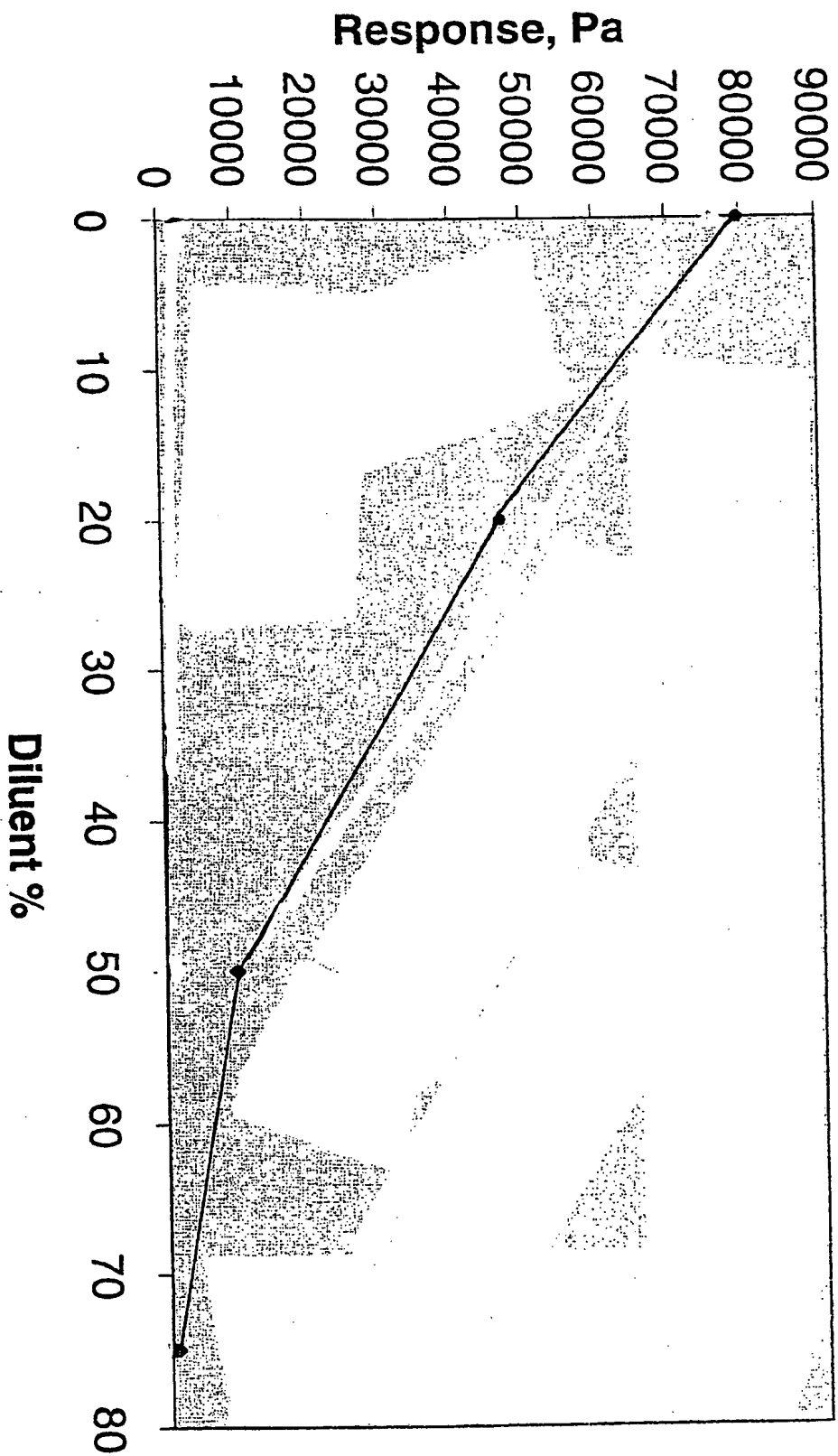


Fig. 49

09605520.062700